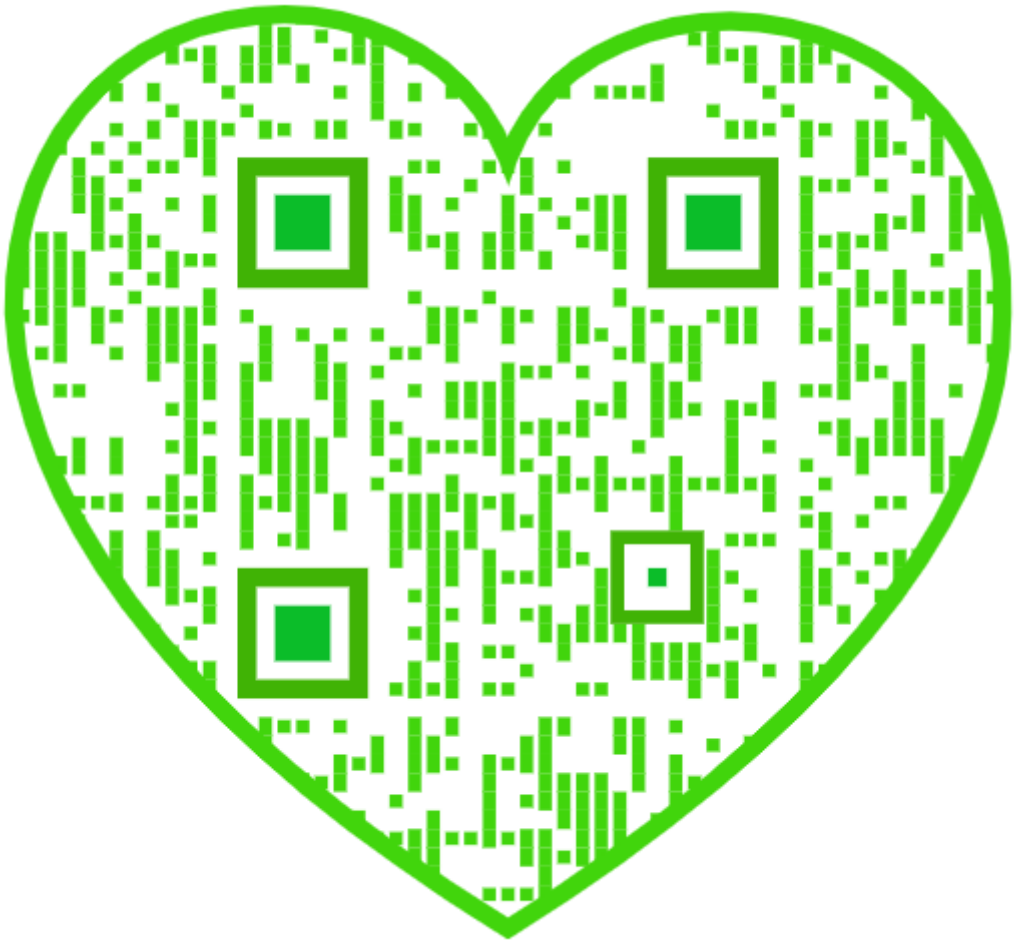

RECREATION

A MONTHLY MAGAZINE DEVOTED TO EVERYTHING THE NAME IMPLIES

VOLUME XVI

JANUARY TO JUNE, 1902

G. O. SHIELDS (Coquina), Editor and Manager

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"THAT IS THE WORST CAT I EVER SAW."

RECREATION

Volume XVI. JANUARY, 1902. Number 1.

G. O. SHIELDS (COQUINA), Editor and Manager.

BONAPARTE'S TROUBLES.

JOHN N. COLE.

Bonaparte came into the world in April, 1886. He was of setter parentage, without a pedigree; color, black and white. Talk about contrary, unpromising pups! He was the worst I have ever seen. When 4 months old, he had to be dragged into the woods, like a young calf; but he pointed a woodcock, and at 5 months a ruffed grouse. That saved his life.

The neighbors hated him; so did my wife, and an inclination to roll in mud holes and then to dry himself on the best bed did not increase her love for him.

Before he was 8 months old I had shot 27 grouse and woodcock over him. The second year he preferred to flush birds. One day when he jumped a grouse, I fired at the same time, killing the bird and putting 12 shot into Bone. He looked at the bird, then at me. His face showed he had arrived at a conclusion. So it proved, for he never again broke a point.

When hunting woodcock, I have seen him on the run, nose in the air, catch a scent and stop so quickly his hind legs would rise as if he were about to turn a somersault. He would stand in any position in which he happened to alight.

When 2 years old, he one day dug a bottle of whisky out from under the sidewalk, and carried it home to me, frisking his tail joyfully.

Bone would not obey a command in the field, but after a time he would get his ideas from my motions. Then we understood each other, so we got along all right. One of his tricks was to hunt up birds while I was eating my lunch. He would walk to a clump of bushes, come to a point, start again, with nose in the air, and continue this until I followed, when he would lead me to the birds.

Cats were a delight to Bonaparte; he liked to see them climb trees. One evening I had been fishing, and just at dark, in a little gulch near the creek, the dog thought he saw a cat. He ran his usual bluff, but the cat proved to be a skunk. The expression on Bone's face seemed to say, "That is the worst cat I ever saw. I am sold, sure enough."

He rubbed himself into respectability as soon as possible; but never forgot the cat. The following year, on going to the same place, he recognized the spot, rubbed himself in the grass, looked at me, and wagged his tail, as if saying, "Don't you remember that great joke?"

Bone gained a reputation as a woodcock dog, and he had few equals on ruffed grouse. He would never retrieve on land, and only the first bird of the morning from water. No amount of persuasion would induce him to go in again that day.

Except when I was on business trips to Buffalo, he was always with me. On my return, he would meet me at the station. When I was driving, he would keep his position under the buggy, and woe unto the dog that molested him. Bone was cock of the walk, and was so recognized

by several bulldogs that had interviewed him.

During the summer, he slept, from choice, on the mat at the front door. Nothing could cross the lawn in safety after the lights were out. One night when I was away from home, he ran a man into a barn and kept guard at the door an hour. My neighbor, who saw the performance, preferred not to interfere, so the intruder made his escape.

When I moved to Montana, 5 years ago, I gave him to a friend in Gowanda, N. Y., where he still lives, loved by all our old friends. For nearly a year after I left he made daily trips to the train, looking for the return of his old master. The man who owns a faithful dog has a friend indeed. I would be just as glad to see my old dog again as I would to see the dearest human friend I left behind.

TWO PICTURES.

A. L. VERMILYA.

On the walls of my cosy, book strewn den
Are two pictures, neatly framed;
One is "A Glimpse of a Fairy Glen,"
The other "Good Luck" is named.

One shows a tent in a woodland nook,
With the sun just going down
O'er the mountain top, where the light-shafts look
Like the spires of a distant town.

And grouped round the camp fire's cheerful glow
As they watch the fading day,
Are men, telling stories of long ago,
Or smoking their pipes of clay.

You can almost feel the air grow chill
As the cool breeze sweeps along;
You can almost hear the lone whip-poor-will
As he chants his plaintive song.

In the other view is a placid stream,
Where the sun-kissed waters glide
'Tween the grassy banks where the lilies dream,
As they rock on the silv'ry tide.

In a boat fast moored to the nearer shore,
Are two bright eyed little girls;
They have gathered of blossoms a goodly store,
Which they toss where an eddy swirls.

From the bank a man casts a dainty fly
Far out on the river cool,
For the bass that lurk where the green weeds lie
In a shady, crystal pool.

These are the pictures that bring to me
In my den on the city street,
The sound of the whisp'ring maple tree,
And the wildwood odors sweet.

Which is the better? Ah, who shall say?
I have never made the choice;
Both breathe of a mellow autumn day,
Such as maketh the heart rejoice.

AMATEUR PHOTO BY GEO. G. CANTWELL

GRAYLING, THE TROUT OF THE YUKON.

A COON HUNT IN A CANADIAN FOREST.

O. M. ARNOLD.

The fight you are making for the protection of game is worthy of material support, and I enclose fee for a year's subscription. The inherent nature of man to kill is a heavy handicap against you in the race on which you have entered, but the gradual disappearance of game in all parts of the country may act as a warning and offset the natural inclination.

In my boyhood I was fond of dog and gun. My father was a good hunter and my mother was an ideal shot. I have often seen her select a chicken walking in the yard and shoot it in the head, offhand, with a rifle. Their home is in Kent county, Western Ontario. Not many years ago there were plenty of wild pigeons, quails, grouse, ducks, geese, wild turkeys, black squirrels, rabbits, ground hogs, foxes, deer and coons. Most of them have disappeared on account of not being protected. I live in the beautiful Muskoka Lake District of Ontario. Until recently deer were found here in herds; now they are scarce. In Ontario we have a game law which limits the number of deer any person may take in the open season, but that is offset by the number of persons who hunt. The law is supposedly enforced by officers who are appointed by the government without regard to any qualification save political good conduct. The game warden is clothed with extraordinary power. He may be, and is, informant, prosecutor and, being ex-officio a justice of the peace, judge of his victims. These are generally poor settlers who only come within the scope of the law by killing for food during the close season.

The result is there is little killing done by settlers, and during the open season the country is overrun by hundreds of hunters and trainloads of hounds, who carry on a war of extermination. They slaughter deer in the water and on well marked runways as if the poor animals were deadly enemies of man. If hounding were prohibited not only would deer increase but good still hunters would be developed. Now there are few worthy the name.

My favorite sport was coon hunting. An article in March RECREATION, by W. A. Bruce, brings to mind my last coon hunt. Mr. Bruce apparently did his hunting with hounds. I never fancied them for coons. I have found them too apt to run the back track. Their power of discrimination is not good. It is anything but pleasant to fell a big tree and find it the one the coon left hours before. The hounds I knew were also inclined to run foxes, or perhaps spoil an evening's sport by pouncing on an unwary skunk.

A coon in front of a slow hound always takes a big tree. That does not happen so often with a smarter dog. They are often forced to take a small tree or be caught on the ground.

The best coon dogs I have known have been yellow dogs—collies and crosses of other breeds. The proverbial uselessness and meanness of a yellow dog must have been imagined by some person who never owned one. My last hunt was with a yellow dog. He was a collie, above the average in size. As a pup he had a bad reputation in the neighborhood where he was raised. He fell into the hands of a man who presented him to my father as a sort of practical joke. The dog had a fine head with plenty of brains and eyes that bespoke his every mood. We all soon fell in love with that hitherto despised yellow dog. He turned out well and proved a great coon dog. When he barked up a tree a coon was surely there.

The time of which I write was a fine fall evening. The frost had cleared the trees of leaves, and there was just enough moonlight to enable one to go through the thin woods without a lantern. I had gone home from school for a few days, and was sitting in the dining-room reading. Suddenly there came a scratching at the door and the dog began to whine. I hastened out and the yelping of dogs told me a coon tree had been cut on an adjoining farm, and that the game had got away. The dogs followed fast on the track, through a bit of brush, across a cleared field and over the highway into our woods. It was what we called a swamp coon, old and wary. He knew exactly where he was going. It was to a stately elm, the largest on the property. The coon had often escaped by reaching that tree.

After calling me out the old dog started for the noise, but a word from me brought him back. Soon the other dogs became quiet, and as there was no immediate sound of axes I knew the coon had reached the big elm. The animal frequented a corn field near where he was first put up. His tracks, frequently seen in mud and soft ground, showed that he was a big fellow. My father had given our neighbors permis-

sion to cut the big tree the next time the coon took refuge in it. On other occasions they had left him there and hunted a new quarry. That night, however, they decided that the tree must come down and the coon be captured at all hazards. Thus it was that at length the merry sound of the axe broke the stillness of the night.

The sound again put fever into the veins of my dog. I put a chain to his collar and told him we would go. The gladness of his soul, if dogs have souls, was expressed in his eyes and accentuated by the wagging of his tail.

On arriving at the woods I saw by the cutting which way the tree would fall, and took a position where I would be safe from falling limbs.

We waited patiently enough until the cracking of the tree as it started to fall set the old dog wild. He had often heard that sound, and knew it was the prelude to a keen chase and perhaps a fierce fight. I unsnapped the chain and held him by the collar with one hand while I closed his mouth with the other. The time had not come to make our presence known. The swish and crash of limbs as the great elm came roaring down through the other trees was too much for the dog, and he set up a lively fight to get loose. When the tree struck it shook the earth. I had to let the dog go, even at the risk of his being struck with pieces of limbs which continued to fall. A coon is seldom hurt or killed by a falling tree. That one was no exception to the rule. Almost immediately he leaped from the top and made off at marvelous speed in the opposite direction from the light and the other dogs. As he ran past me I whistled for my dog, but he was already on the track and he caught the coon in a few seconds.

The other dogs were not yet through the top, and were hunting for the track, followed by the boys with the lantern. I had the fight all to myself. Over and under they rolled, each growling and fighting in his own particular fashion. When the other dogs arrived on the spot the fight came to a sudden end, and a coon paid with his life for the crime of living.

THE VOICE OF THE HILLS.

REV. R. S. STRINGFELLOW.

I know a place where mountain peaks
  Look down into valleys deep;
A place where the clouds come down to rest
  And where the storm gods sleep.

I have seen the spirit of storm come forth,
  With his frown and his ghostly shroud,
And revel awhile in the valleys below;
  Then back to his home in the cloud.

Back to the gulch's hollow throat,
  And the cavern's yawning gap;
Far in his cloud pavilion
  He goes for his evening nap.

I have seen him come from his chamber,
  And, like an eagle in his flight,
Cover the stars with shadowy wings,
  Blacker than Egypt's night.

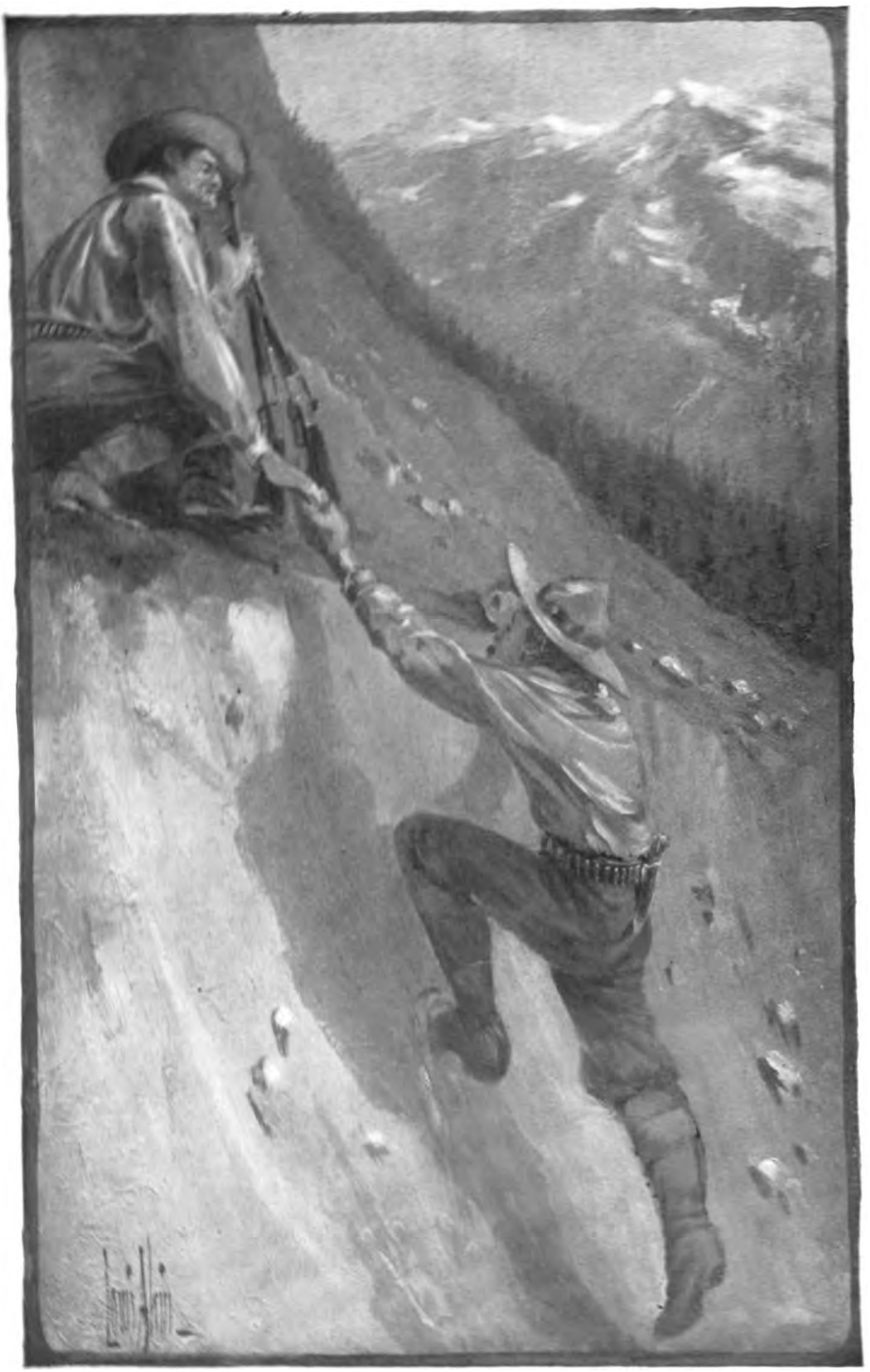
Then have I seen the Morning rise,
  With glittering lances of red,
And send the retreating storm fiend
  Back to his mountain bed.

I know the winding valleys,
  All dark with hoary trees,
That cast their elf-like shadows,
  And quake with every breeze.

Far from the noisy railroads,
  That tell of the haunts of men,
Back in the wooded gulches
  Where the panther makes his den.

Back where the rivers start and flow,
Fresh from the everlasting snow;
  Splashing the rocks with fleecy spray,
  Leaping the boulders and cliffs in the way,
Down to the hills below.

Farewell to the dust and the crowded streets!
Farewell to society's empty sweets!
The mountains look down through the haze with a smile
And bid me come with my rifle a while.



"WHERE I WAS TO GIVE UP MY GUN AND BE PULLED OVER."

WHERE THE BIGHORN ROAMS.

W. B. LEE.

Last fall the opportunity came for K. and me to go to the extreme Northwest for bighorn and mountain goats. My outfit consisted only of one corduroy suit and an extra pair of trousers; 2 heavy flannel shirts; 2 suits of underwear; an extra weight football sweater, for night; a rubber blanket; a pair of Hudson Bay Company 4 mark blankets; a sleeping bag and toque, or night cap; 3 pairs of lumbermen's socks; 2 pairs cotton socks; hob-nailed shoes; Penetang shoe packs; 2 pairs of moccasins; felt slippers; handkerchiefs; towel and soap. These all went in a large canvas waterproof bag, called in the North a turkey. Besides these, I took a small leather carryall, into which I put reels and fishing tackle, hand mirror, comb, shaving apparatus, memorandum books, thermometer, a few medicaments, needles, thread, and such small things.

Although we were 2 days in reaching St. Paul, the real journey seemed to begin there. As K and I boarded the Great Northern train the thrill of anticipation was keen. The journey West from St. Paul up to the backbone of the Rocky mountains was interesting but not exciting. The trees in sight might have been counted; but when we began to descend the other side everything was changed. Canyons and valleys, swift running streams and rivers, and great forests of firs, pines and spruces made a delightful change. We finally reached Spokane, and about 2 o'clock in the morning of the fifth day we and our belongings were dumped out at the lonely station of Wenatchee. There the railroad crosses the Columbia river, where it takes its second turn and starts West on its final journey to the Pacific. It comes to Wenatchee from due North 70 miles, and up that distance we were to go to the Bend, where the river comes down from the Northeast.

We made a perilous passage in the dark from the station with our trunks down to the river, the banks of which seemed at that time the sides of a good sized canyon. We couldn't see the water when we got there, but could hear it rushing and boiling along. I had heard the current was swift; it sounded that morning like a cataract. The little steamer which goes up twice a week was chained to the bank, and we climbed on board and lay down on the deck to wait until daylight.

At 5 in the morning I was awakened by the efforts our craft was making to get started. I was at once impressed with the fact that the boat was built strictly for business. It had a strong, scow like hull, with a square stern, across which, the extreme width, towered a great paddle wheel; a slightly built superstructure of a cabin; and extremely powerful engines. The machinery seemed to take up most of the room, and it was all needed, for this stretch of 70 miles of so-called navigable water is said to be more dangerous than the Yukon. The fall is 594 feet in the 70 miles. The steamer goes up twice in some weeks, and some weeks it doesn't go at all.

The current averages 6 to 10 miles an hour, with 2 heavy rapids, the Methow and the Entiat, thrown in. In some places we seemed barely to move for some minutes, the volume of water was so tremendous. The color was a deep blue or green, more intense than that of Niagara; indeed, I can find no standard of comparison except with the Niagara below the Whirlpool, as seen from the Gorge railroad. The Columbia, pouring its mighty flood, second only to the Mississippi in volume, through these outposts of the Cascade mountains, is still not dwarfed by its environment.

Back from the river, with a high water mark of 40 feet, the mountains rise, with no sign of vegetation except sage brush. It reminded me of the Arizona desert in the brilliant sunshine, except that this river might irrigate 2 or 3 arid Western States.

The catch of salmon in the Columbia supplies most of the civilized world with the canned commodity. They are taken by all sorts of mechanical contrivances in the early part of the summer; the wheel, an arrangement which scoops them out wholesale, being the most deadly. I was tempted by the sight of some fish as we ran by the points, and laboriously got out about 400 feet of troll, but caught nothing except the blades of our big paddle wheel.

Virginia City, the head of navigation, was reached at 8 p. m. It contains a hotel, a post office, one store and 5 houses. Just before reaching there we passed the mouth of the outlet of Lake Chelan, which lies about 40 miles West in the heart of the Cassade range. The United States Geographical Survey is now exploring it, and has sounded to a depth of 2,750 feet in the lake without reaching bottom.

The next morning we started due North 100 miles, by a primitive 2 horse wagon called a stage, for British Columbia, where we had been led to believe the bighorn and the goat could be found in their most unsophisticated state. It was extremely dusty, for the Eastern slope of the Cascades, unlike the Western, resembles a desert, and there had been no rain for months. Sage

brush abounds, and in the valleys and along the foothills there is plenty of bunch grass.

THE CAVALCADE WAS IMPOSING.

With irrigation anything may be raised there except tropical fruits, and I can readily believe that the State of Washington has a great future before it in fruit.

We passed through one busted mining town. It boasts the only plank walk in Okanagan county, a section as large as Connecticut. The one street is lined on one side for a quarter of a mile with houses, all but 2 of which and the hotel are now empty. Three years ago the town had 1,000 people and 20 saloons. There are now said to be 2 men left.

We spent the night in Conconully, the county seat of Okanagan, and the next morning we went on again by stage through the same succession of valleys, mountains, divides and canyons, reaching Loomistown, a small mining town near the frontier, in the afternoon of the second day's staging. There we outfitted and were met by our guides, Carlos, Edouard and Henricus. They came in with the horses, true to appointment, within half an hour of our arrival. That we thought remarkable, as we had not had time to hear from them in answer to letters fixing the time and place of meeting. Our own journey by railroad, boat and stage was upward of 3,000 miles, and they came from widely separated points; yet we met as if we had been run out of pneumatic tubes on schedule time.

We crossed the boundary and rode late into the night by the light of a glorious

GOING UP THE SIMILKAMEEN RANGE.

moon, fording the Similkameen river, on and up until we reached the last ranch. I never knew just where or when the frontier was crossed. The cavalcade as we started the next morning was quite imposing; 5 saddle horses and 5 pack horses. The latter are not led, and have no bridles. It was interesting to see them instinctively take the zigzag course when we began to climb. I wished at one time that they had been led, for one of them got to bucking on the side of a mountain and finally rolled until the pack got loose, and my bag never stopped until it reached the bottim of a canyon.

We kept on all that day, and the next morning, turning sharply to the West, we commenced to climb in earnest. We were going up the Similkameen range about 7,000 feet above the valley, and I found that everything up to that time had been child's play. It is risky to camp high up at that time of the year, but if one is going to hunt bighorn he must camp where they live. Of course, one can not hunt on horseback, and if he camps low he will have to climb some hours every morning to get where he may hope to see his quarry. So we kept on and up all day with the horses. For the first hour or 2, whenever I had doubts about the ability of my animal to connect with the elevation where his forelegs might be placed, I promptly slid off. I soon found, however, that the horse was perfectly unconcerned, no matter how hard he might be struggling, so thereafter I hung to the pommel of the saddle and looked at the scenery, which was well worth it. Away to the North, over wave after wave of pine covered mountain and valley, was Eagle pass on the Fraser river, through which the Canadian Pacific railroad works its way to the ocean. Sharply defined against the Western horizon was the serrated line of the Olympic range on the coast; and more than 150 miles to the South the snowy summit of Mt. Tacoma, nearly 15,000 feet above the sea, was a ghostly phantom, seen now and again in the clear sky of that upper region.

Finally we reached the land of stone slides and ice. There the canyons run themselves up and out of soundings to the humble dimensions of small valleys. The only trees left are dwarfed and twisted into all manner of forms by the violence of the mountain winds, and the weight of snow and ice from which they are free but a short portion of the year. It was late when

AMATEUR PHOTO BY W. B. LEE.

THE CLOUDS WERE THICK ABOVE, AROUND AND BELOW US.

we reached a spot where we could camp, but a cheerful fire relieved our depression, and we felt at home as we sat down to a big supper of venison, potatoes, bacon, beans, stewed prunes and tea. As we expected to move on in the morning, we rolled ourselves in sleeping bags and blankets under some low spruces and pulled the tent over us for a tarpaulin. The weather changed in the night, and we awoke to find ourselves with an additional blanket of 2 inches of snow. The clouds were thick above, around and below us, and it was snowing and blowing a gale.

That storm lasted 3 days and kept us right there. We got the tents up, kept big fires going and were comfortable in body, but the delay was exasperating. The tem-

perature went down to 7 degrees and snow fell 18 inches deep on the level. That was one of the chances of camping high. We afterward learned that the sun was shining most of the time in the valley far below. He appeared to us the fourth day and we started, traveling all day over the ridge, and finally going into camp somewhat lower down, on a slope with a southern exposure, where the snow might be expected to melt. I had hoped to get some fishing in the little lakes, but found them better adapted for skating rinks.

The next day was clear and warm. Soon after daylight Carlos and I started in one direction and K. and Edouard in another. As we did not expect to return before night we took some raisins and chocolate in our pockets for lunch. We kept going all day, down one deep canyon, and then straight up to the top of the mountain. Thence we returned to camp by a ridge overlooking some likely spots. My guide's favorite way of ascending a mountain was to use a stone or rock slide, which is something like the track an avalanche leaves, as a kind of ladder. It was hard work, and was made still harder by the need of going quietly. One stone dislodged and sent rolling on its way to the bottom might spoil a chance. There were places, too, where I had to give up my gun and be pulled over the points where I could not get a foothold. The more precipitous and dangerous the point the more frequent were the sheep tracks and signs. Bighorn hunting gives one the joy of surmounting real difficulties.

I had an opportunity to kill an ewe the third day, when trailing a cinnamon bear. This bear had deliberately and maliciously led us to abandon our main enterprise by appearing to Edouard, who was looking for the horses and had no gun. Edouard said the distance was 30 feet, and that he knew this because the bear and he stood and examined each other for some time. The report of the animal's size sent us after him with our guns; but we tracked him without getting a shot. However, we came on a band of 12 sheep, all ewes, and had a fine opportunity to study them. They came trotting along over the rocks, going to afternoon tea somewhere, I suppose. When K.'s rifle banged they were on the edge of a bluff where an elevator would have been the proper thing; but they were down it and off in an instant. All but one, which we had the pleasure of eating. It was like the best mutton, with a venison flavor.

The proportion of ewes to rams is about 10 to one, and the latter are generally found alone. The one which I had the good luck to meet we discovered about 11 in the morning after 4 hours' hard work up and down a rough mountain range. He was half a mile away, and, seen through the glass, was a typical picture of his race. He stood motionless on the edge of a great cliff for some minutes, apparently enjoying the extended view. The wind was blowing a gale diagonally down the mountain, and it was impossible to get above for a shot. There was no cover to hide a nearer approach, except some scattering trees and one small canyon. We waited some time in the hope that he might work toward us, and thus give me an opportunity to shoot. Instead of doing so, he began to move higher, and we were obliged to follow, keeping at about the same distance, but below a shoulder of the mountain and out of his line of vision. He led us a climb of about 2,000 feet, and then after a while went down again and took us far below the point from which we started. It was then about 3, and Charlie said we would have to get nearer and take our chance. We managed to reach the canyon without being discovered by the ram, and about 20 minutes' work took us across and up the nearer side. Then for 200 yards we crawled flat until we reached some trees and stood up.

Something alarmed the ram at that moment. He gave a jump which seemed, to my excited vision, to take him 50 feet farther away, and I had to shoot! I shot twice; and as he ran along below, only his head and the top of his back showing, I shot twice more with no hope of hitting. I then sat down to reflect and smoke a cigarette, the first since morning; but Charlie was down the mountain, making for the canyon we had crossed, and called me to follow. I rolled a good part of the distance, and finally brought up near him at the edge of a high cliff. Our bighorn had stopped a while, but was now going on the full jump through a little draw into the big canyon about 200 feet off. Only one bullet had touched him. It was enough. It had passed in back of his shoulder and completely through his body. He was a 3 year old, with the horns, of course, of small size, but with a wondrously wise expression.

It was then 4 o'clock, and having had nearly 5 hours of the most interesting stalk I can ever hope to experience, we started up the mountain in the face of a driving storm of rain, which became snow as we got higher. I was completely encased in ice and snow, which on top of the range was almost driven through the texture of my clothes. When, late in the evening, we turned into the light of our camp fire we made an impression on K. and the others that they will not soon forget. A complete change into dry woolens, a big drink of whiskey and ginger, and a tremendous supper, sent me to bed comfortable and happy.

A MOUNTAIN TRAGEDY.

A. L. VERMILYA.

It is a beautiful afternoon in the picturesque and rugged West. The air is clear, and cliff and gorge, rock and rivulet, make a picture such as no artist can ever hope successfully to transfer to canvas, and such as can be seen only in this enchanted land. Here Nature reigns supreme and undisturbed.

On a smooth rock, at the foot of a trail which winds its devious way far up among the mountains, a hunter is reclining. His buckskin garments and general air and make-up denote that he is a well-seasoned denizen of the West, a rover of mount and plain. His rifle stands at his side, in a cleft of the rock, and his only business, at present, appears to consist in enjoying the autumn sunshine and the majestic mountain scenery.

Anon he glances dreamily up the trail, when his eyes open wider as he discerns, far above him, something of interest. Now he sits upright, and looks intently. High up among the rocks, and so far away that he appears but a pigmy, a man stands a short distance from a bend in the trail, and close to a towering mass of jagged rocks with paths running among them in all directions. His gun is at his shoulder, and he appears to be waiting for something. Perhaps he has seen some animal, and is waiting to catch another glimpse of it as it rounds the bend in the pass, on its downward way.

The hunter down the trail is really interested now. He takes a small field glass from his pocket, and standing up, surveys the scene above him.

"Great rattlesnakes!" he ejaculates, after gazing steadily up the pass for several seconds; "what's the matter with the chap? Is he glued or froze to the rocks, with his gun p'intin' at nothin'? One of them tenderfeet, I reckon, that's stoppin' down at Baker's. Don't s'pose the cuss can tell a coyote from a sand peet, or a broncho from a sufferin' Sam. There's game, too, plenty. Grizzly, sure as shootin'!" In his excitement, he takes a few steps forward, the glass still at his eyes.

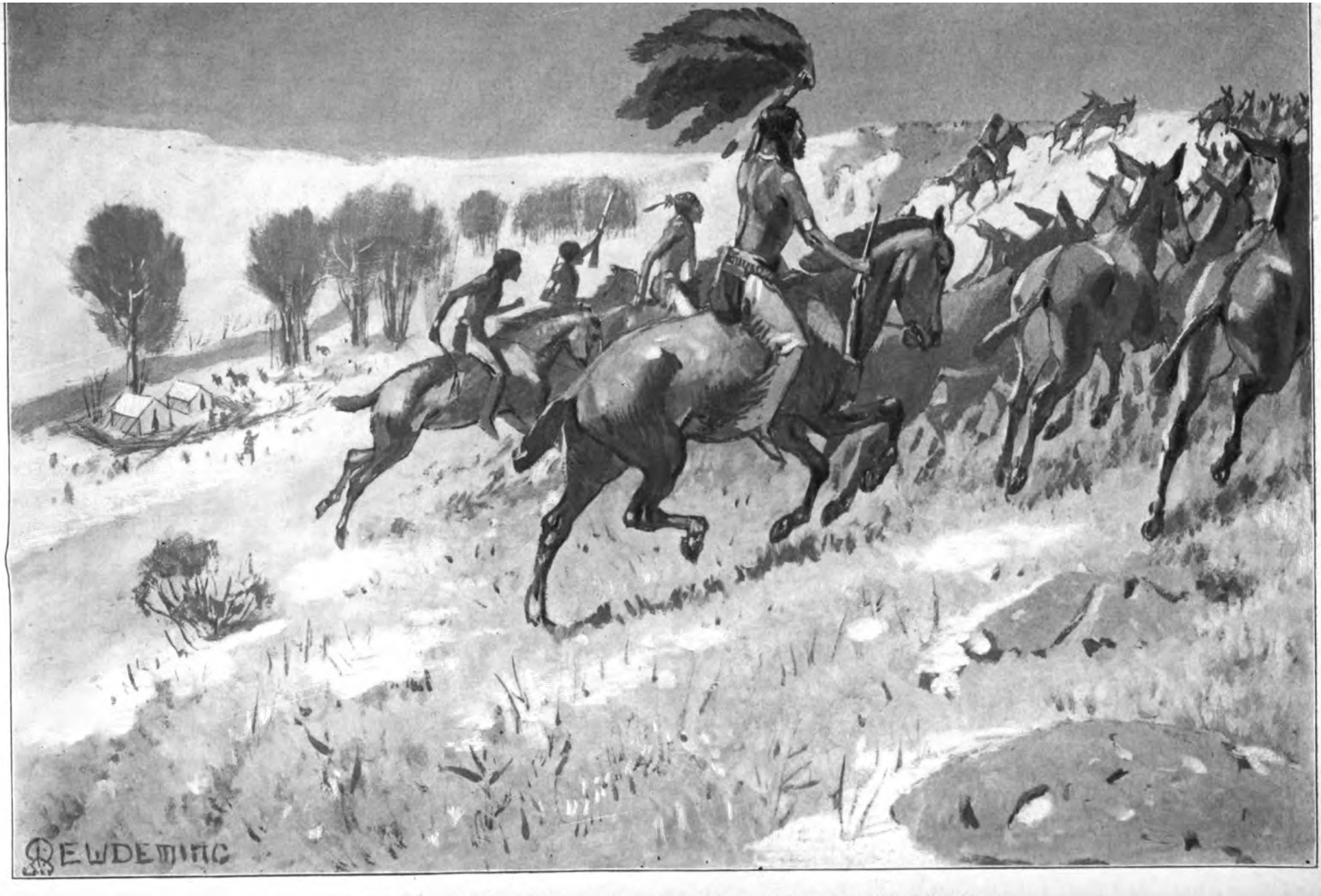
Around the bend slowly shuffles the great bear, and then comes the faint report of a rifle from the rocks above. The grizzly rears on his haunches, while his huge paws claw at his breast. He is hit hard. In an instant he catches sight of his enemy, and dropping on all fours, he makes a rush at the shooter. The man bravely stands his ground, and twice raises his rifle to his shoulder as if about to shoot, but does not do so. He seems bewildered, and just as the wounded and infuriated beast is almost on him, the man turns and flees, carrying his rifle with him. Man and beast quickly disappear among the rocks.

"Well, by the jumpin' Jews!" exclaims the man in buckskin, taking the glass from his eyes; "of all the fool tenderfeet I have ever happened to run across, this one beats the world, with several smaller planets throwed in for good measure. He is surely a green image. Must have been kinder paralyzed like. 'Mazin' bad fluster a man must be in to wound a grizzly an' then jest stand around till the varmint is plum ready to chaw 'im. Ought to pumped lead into the critter long as it held out. Don't pay to take no chances on that sort o' game. From the East, prob'ly, an' thought a grizzly a mild sort o' beast. Bet it kinder surprised him when he see the varmint pacin' along to'rd him with his war paint on. Dash bust a fool, anyway!"

It is mid-afternoon by the time the Westerner reaches the spot where occurred the peculiar battle between the tenderfoot and the grizzly. "Must have scairt the chap clean across the divide," he says, as he moves along. Now, he rounds a sharp angle in the trail, and with one swift glance his eyes take in the scene of a tragedy. A few feet apart lay man and bear—both dead. The man was chewed and clawed in a shocking manner.

"Holy pilgrims!" exclaims the hunter, "the poor chap got his game, but not quick enough. One bullet won't do for a grizzly. Why didn't he shoot him up more?"

He picks up the rifle, a repeater, and as he gazes at it, a look of anger and disgust spreads over his face. A shell is tightly wedged in the action, rendering the weapon absolutely useless. With an imprecation, he raises the rifle above his head, then hurls it far down among the rocks. It is not a Winchester or a Savage; it is the other kind.



"WITH NINE INDIANS CLOSE BEHIND THEM, YELLING LIKE DEMONS."

HOW WE LOST OUR MULES.

NELSON YARNALL.

After the Phil Kearney massacre, and the treaty of our government with the Sioux Indians, under which Forts Phil Kearney and C. F. Smith were abandoned, the mules from those posts were sent to Fort Laramie and turned over to the quartermaster there to be foraged through the winter. When Laramie received its allotment for forage no allowance was made for animals from other posts. As hay and grain could not be had so late in the season, it was thought best to place the mules in charge of competent employees, and send them out to be herded on the grass for the winter or until forage could be brought out from the Missouri river.

Accordingly the mules were placed in charge of a man named Daniel McCall, who chose from the post employees a competent cook, one teamster, 2 day herders and 2 night watchmen, a Mr. Smith and me being employed for this duty. We prepared to make ourselves as comfortable as possible, drawing from the quartermaster good tents, axes and clothing; from the commissary a liberal supply of provisions, and from the ordnance department good guns and ammunition. The mules were counted and receipted for by Mr. McCall, and we started for the grazing grounds on the Laramie river, about 20 miles from Fort Laramie in a Westerly direction.

There were something over 100 animals. They were poor; but although the weather was cold, it being midwinter, the grass was so plentiful on the range that in a short time they had gained in flesh wonderfully, and when turned out of the corral would run and play like colts. It was surprising to see so great a change in so short a time, as well as amusing to watch them in their playful moods.

The place chosen for our camp was in a beautiful grove of cottonwood trees, which, beside affording excellent shelter from the cold winds, furnished an abundance of good fuel and material for a corral. This we made by felling trees in a circle.

After our tents were pitched and everything prepared for the remainder of the winter we congratulated ourselves on the good time we would have. Antelope and deer were plentiful, and a good supply of meat for our camp, with an occasional choice cut for the commanding officer and the quartermaster, was almost a sure thing, we thought.

On the North and South sides of the river were low, broken hills, with coulees coming into the river at short intervals. This broken, hilly country terminated on the South side about a mile to the East of our camp, and a comparatively level plateau extended thence Eastward 4 or 5 miles, making an ideal place to hunt antelope. The rough, hilly country to the Westward of this plateau afforded an excellent hunting ground for deer of both kinds. It was also an excellent hiding place for Indians, as we soon learned.

It was my custom to retire at sunrise and sleep until our noonday meal was ready. Then, if not rested, I would retire again in the afternoon.

One fine day, after I had eaten my dinner, I shouldered my gun and went after a deer. I had not gone far, however, when I saw fresh moccasin tracks. I immediately returned and reported what I had seen to Mr. McCall, but he thought the tracks might have been made by some of the coffee coolers from the post, who might be out hunting. I argued that the coffee coolers would not hunt in our vicinity without visiting our camp.

The matter was dropped, however, and nothing more thought of it for a short time. We had enjoyed, for a month perhaps, the pleasant time we were foolish enough to anticipate, when one morning while Mr. McCall and party, excepting one day herder, the cook and me, were absent at the post for the purpose of renewing our supply of provisions, a stalwart Sioux Indian appeared in our camp. I had turned the mules over to the day herder and had retired to try to make up some of the sleep I had lost the previous night. The cook was busy baking a Dutch oven full of fat deer's ribs, and I had just gone to sleep when the cook's head appeared in my tent, and in a voice which I thought sounded a little shaky he said,

"Yarnall, for God's sake, get up; there's an Indian in camp and I can't make out what he wants."

"Perhaps he smelled the meat you are cooking and came in to have a feast," I answered.

I knew the sign language, and as I was the only man in camp who could talk with an Indian, I dressed and walked out to the camp fire, where the Indian was sitting, eyeing our oven of meat. I waited some minutes for him to open the conversation, but as he showed no inclination to begin. I asked him, in the sign lan-

guage, where he was going and what he wanted.

He replied, in what seemed to me the easiest and most graceful signs I had ever seen, that he was on his way to the Cache La Poudre, to visit friends.

I asked him if he was alone. He replied that he was, and added that he had come a long way; that he had no meat, and was very hungry. I told the cook I thought the Indian lied; that it was my opinion he was in our camp as a spy, and might soon return in a very different manner. All of which I now believe the Indian fully understood. I had some other conversation with him about hunting buffalo, going to war, etc., after which the cook gave him his breakfast.

After eating what seemed to me enough to satisfy 2 hungry men, the Indian mounted his pony and rode away, but in the opposite direction from the Cache La Poudre. This greatly increased our fears for our safety. The cook, especially, was greatly frightened, and I imagined I could see his knees tremble.

I again retired, after sending word by the cook to the day herder to be on the alert, and by no means to allow the mules to wander too far from camp. I could not sleep, however, and soon arising, suggested to the cook that we would best fortify ourselves, as I fully believed we would be attacked. We accordingly piled logs around our tents, which afforded fair protection from any possible attack. My gun was an old Spencer carbine, of 50 or 52 caliber, and when fired the ball traveled so slowly that at a few hundred yards an Indian would have plenty of time to dodge the ball if he should see the smoke from the gun when fired. On one occasion I fired it, at a distance of 600 yards, at a band of antelope, and on watching them some seconds after firing, was surprised to see 2 of them tumble over. I proposed to exchange guns with the cook, his being a modern Springfield, but he would not hear of it.

On the following morning, after giving the day herder instructions and turning the mules out of the corral, I had just retired to my tent and rolled myself in my blankets when I heard the clatter of a horse's hoofs on the frozen ground, and the voice of the herder exclaiming, in the highest accent possible,

'In-di-ans! In-di-ans! ! In-di-ans! ! !"

I leaped out at once, but was only in time to see the herd disappearing over the crest of the hill, with 9 Indians close behind them, yelling like demons and shaking their blankets at the frightened animals. If it had been amusing to see them kick and play, at times, it was much more than amusing to see how quickly they climbed the hills and disappeared. I would not have believed it possible for a mule to run so fast had I not seen the stampede with my own eyes.

There were left standing around the corral, enjoying the morning sun, a number of mules, 2 of which we secured as quickly as possible. Neither the cook nor I had a saddle, but we mounted hastily and all 3 of us started in pursuit. It was a foolish thing to do, but we felt the loss of our charge so keenly that I believe had we not been fortunate enough to secure a mount we would have started after the redskins on foot.

We urged our mounts forward as fast as they could go, anxious to come up with the Indians, but of course were unable to do so. We followed the trail until after noon, when, seeing the hopelessness of further pursuit, we returned, reaching our camp at one o'clock at night, about as sore and as tired a trio as could be found anywhere. I have since often thought how fortunate for us that we were unable to come up with the Indians.

On our return we attempted to withdraw poisoned arrows from 6 mules that had given out and had been wounded by the Indians; but we were unable to do so, as the arrow points were too firmly imbedded in the flesh. The poor mules afterward died of their poisoned wounds. Two of them tried to get back to camp, but were too weak to do so and died on the way.

After preparing a hasty meal we all retired, and it seemed to me I had just gone to sleep when I was awakened by the familiar voice of McCall, who, in decidedly unpleasant language and accent, demanded of me the whereabouts of the mules. It transpired that while we were in pursuit of the Indians, McCall and party had returned. Finding the mules and us gone, they naturally supposed we had run away with our charge. Hastening to the post they had reported the matter and had returned with a party to follow us.

After explaining to McCall the true situation, and that we were not the guilty parties, we were informed we must take the trail again.

This time we were furnished saddles, by 2 of McCall's party remaining in camp, and, mounted on animals that had only been ridden 20 miles, we again started in pursuit. The Indians then had 24 hours the start of us, and our chance of coming up with them, without a change of horses, was a hopeless one. We pushed along, however, until after nightfall, when we came to a small stream, a tributary of Horse creek, Southeast of Fort Laramie. There we halted for the night. After unsaddling we found the little stream was frozen entirely dry at that place, and we

were unable to get water for the horses. We managed to get a drink ourselves by melting snow. There was no timber along this stream, and as the weather was very cold, the only way we could keep from freezing was by dividing our party into reliefs, keeping one man at work gathering the little willows that grew along the stream and adding them to the fire.

I managed to get a little sleep during the night by rolling myself in my overcoat and lying near the fire; and what sweet sleep it was! I shall never forget how hard it was to arouse myself when called to do my half hour's gathering of willows.

At the first peep of day we were in the saddle and following the trail, which then bore a little North of East. At about 10 o'clock we came to the main stream of Horse creek. There we halted long enough to water our thirsty animals and to prepare a cup of coffee. This, with a few pieces of dried buffalo meat the Indians had lost and I had picked up, and some hard bread, made a meal we greatly enjoyed.

After eating our scanty breakfast we mounted and again took up the trail, which then bore still more to the North. About loaded with logs, such as are commonly used in the West in building houses. We wondered how their owners could have escaped, as they were in advance of the Indians and directly on the trail. Our fears were soon confirmed, for on approaching the wagons we found the harness cut to pieces, and the bodies of 2 men near. They had been scalped and horribly mutilated. One of the men was bald, but had a light growth of hair around the lower part of the head, which the Indians took as a scalp. It has been asserted that an Indian warrior will not take the scalp of a bald person, but in this case they appropriated what little hair remained on the poor unfortunate man's head.

We found an axe near one of the wagons, with which we cut the frozen earth and buried the bodies as well as we could. The men had been hauling logs to build a road ranch on the North Platte river, near Scott's Bluffs; but there was no clue to their names, as the Indians had taken every vestige of their clothing.

We followed the trail until nearly sunset, when we came to the North Platte river. There we found the Indians had crossed and were evidently so far ahead of us it would be impossible to overtake them with our jaded animals; so we gave up the chase and turned toward Fort Laramie. We camped at the Cold Spring ranch that night, and on the following day rode in to the post.

I have lately been looking over the history of Sitting Bull, and find that one of his most daring feats was to "run off a whole herd of mules." In all probability the herd of mules he ran off was our charge.

AMATEUR PHOTO BY E. A. NORWOOD.

SNOWSHOEING ON MOOSEHEAD LAKE.

AMATEUR PHOTO BY D. H. DARLING.

THROUGH FOREST AISLES.

See page 32

AMATEUR PHOTO BY D. H. DARLING.

KNEE DEEP IN JANUARY.

See page 32

THE TRUE STORY OF DADDY BINKS.

ERNEST T. SETON.

Poor old Daddy Binks kept a corner grocery in a back street of Portcoma, in the State of Washegon. As a boy 40 years ago in Pennsyland he had been fond of an occasional shoot, and once or twice after he went West he had had a lovely time, killing 6 ringtail pigeons with his own hands, on the most glorious of these occasions. That was the crowning exploit of his life. But alas! it was 35 years ago, and never once from that day to this had his lot been anywhere but among the grocery boxes, working from dawn till nearly midnight to do his duty by his family. An apparently interminable task, for the family didn't seem to know when to stop coming, and had already transgressed the traditional limit of the baker's dozen.

But Daddy Binks was a cheerful soul. He stuck to his job, and buoyed his spirits continually with promise of a day's shooting some time. This long deferred hope grew first into the daring ambition of his life; then, after years of waiting, it became too good to be true, and was glorified into an iridescent but impossible dream of Paradise. Sometimes in the 5 minutes smoking time that Daddy allowed himself after dinner, he would indulge in a little day dream and see himself out again with a gun, a real *shooting gun!* as when a free, wild boy. Sometimes he went a little farther and pictured himself proudly arriving home with 6 or even 7 ringtail pigeons in his hand, while all the neighbors would crowd around and hooray and join in his triumph; for everybody without exception loved dear, harmless old Daddy Binks.

For 35 years he had been in this hopeful state of mind, when an unexpected, an almost impossible, combine of good luck not only put it in his power to go hunting but actually forced it on him.

At first the idea of really going was something of a shock; but when he saw the gun his friend loaned him and pored over the map of the duck grounds his enthusiasm soon reached the old time fever heat.

All in due course he reached the grounds. Again luck was with him. He came on a wonderful flight of mallards, and Daddy blazed and blazed. The ducks kept falling, falling, and Daddy grew younger with every shot till he got away back long before the years of discretion, and in a perfect delirium of joy. Oh, the ecstacy of that day! Seventy big fat mallards, when a ringtail pigeon would have set his cup a-brimming!

Oh, the glory of that return home, that march up the main street of Portcoma, with all the neighbors rejoicing in his joy! Cæsar? Alexander? Dewey? Pah! not for a moment! They never had such a draft of unmitigated happiness. It would be his last, probably, but what of that! Here was enough for a lifetime.

Next morning the Portcoma Blaatter came out with full particulars and old Daddy began positively to swell and feel himself an important member of the community. Within the next day or 2 he was posing as an authority on ducking and recommending this gun, that powder and such a boat with the air of an expert. In each case, of course, it was the article he had used on his one duck hunt.

It is wonderful how the fame of the great spreads. One morning there came to Daddy Binks' grocery store a letter from a great editor, 4,000 miles away. It was a polite, almost deferential, note, stating that according to the Portcoma Blaatter he, Mr. Binks, had on such a day killed 70 mallards with his own gun. Was it true?

Daddy swelled with pride to see how his fame had rolled from ocean to ocean. He at once wrote the editor a full account on the back of an old invoice. It was not only true, it was less than the truth, for 5 more mallards had been winged and were subsequently secured! (They were really contributed by deceitful friends, who wished to swell Daddy's bag and happiness, so the old groceryman could claim a one day bag of 75 mallards.) A record surely!

For one short month his joy was complete. Then there came to his happy home a marked copy of a great sportsmen's magazine and Daddy's eye soon lit on this item:

THAT NOTORIOUS PORTCOMA GAME HOG.

D. Binks, the notorious game hog, has outraged the feelings of every decent citizen by a shameful slaughter of ducks. He not only admits, but brags, of having killed 75 mallards in one day.

Poor, harmless, old Daddy Binks! Seventy-five ducks in 35 years; 2 ducks per annum! He was dumbfounded by the ex-

posure. His shame had gone farther than his fame. Publicly denounced and held up as the vilest of the vile, he was utterly crushed. The first blow was terrible in its unjustness. He had not buoyancy enough, self-assertion enough, to recover. But his friends rallied round him. The Blaatter came out with a stinging retort, that the Eastern editor never saw. It did old Daddy some good, but could not reinstate him. The old man was forever shut up on the subject of ducking. The last light of his dull, grocerman life was quenched, and he went his way as before, but everyone could see he was a changed man. He was carrying a load that could not be talked away. No wonder his friend who lent him the gun swore.

"I'd rather 1,000 real game hogs should go unscorched than to see a nice, harmless, old man like that all broken up with an unjust roast! If I ever get a chance I'll—"

He didn't say what, but all the town knew and said they would, too.

MADAME WOODCOCK AT HOME.

HOMER G. GOSNEY.

I send you herewith a photo of a mother woodcock and her nest. She is still here, and nothing would please me more than to take you to her nest and give you a chance to look at her. I don't bother her much, for I should like to get another shot at her and the chicks, after they come out. That, however, would be a hard negative to get, for they fly when they are no larger than bumble bees.

AMATEUR PHOTO BY HOMER F. GOSNEY.

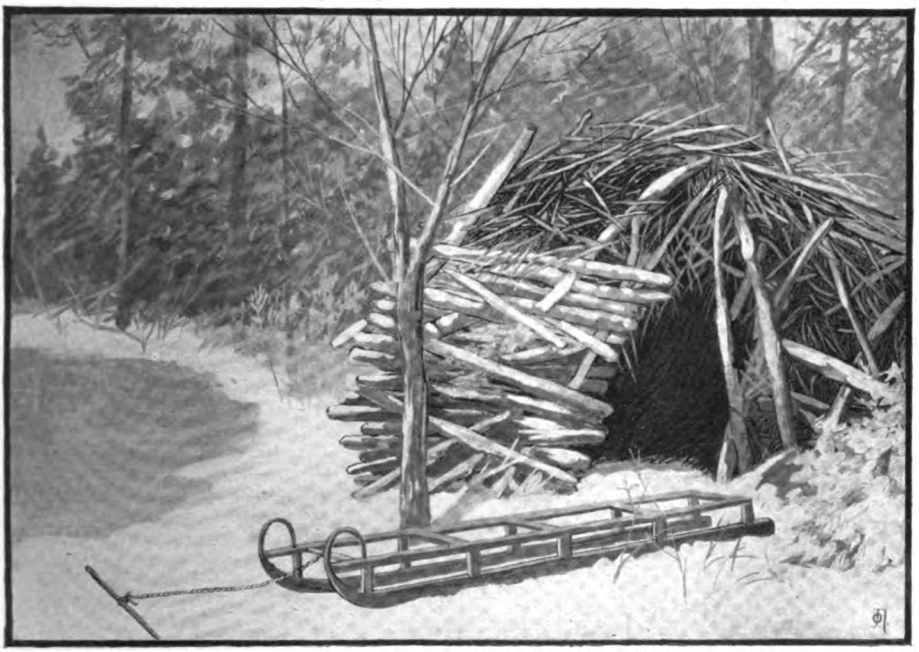
Please enter this picture in your contest. It was taken with a Premo B 4x5; Eastman extra rapid plate, with telephoto attachment. Developed with weak pyro. Exposure, 4 seconds, wide open lens. Camera about 5 feet from nest. The position of the nest made it hard to photograph, and the set of the tripod legs threw the camera in such a position that the bird looks higher than her nest, while she is just opposite and on a level with it. In photographing the nest I threw my focusing cloth over a few twigs to prevent the sun from shining on them when the exposure was made.

If amateurs would quit their random shooting at commonplace subjects, go into the woods, study the birds and cultivate them they would find this work more interesting and profitable. When the birds learn you bear them no harm you will be surprised to see how tame they become, and you will find more material to work on than you had ever dreamed of. Don't try to photograph birds with a fixed focus lens. A long focus is much better. Don't take anyone with you. Go alone and make as little noise as possible.

A WINTER CRUISE IN NORTHERN MAINE.

CARROLL BARKER.

In March, 1892, after the coldest days of a long, cold winter had passed, my father and I decided we had time enough before sugar making to go into the woods to some of the large ponds near the Canadian line for a week's fishing for trout and togue, and perhaps to get a few pounds of spruce gum. When we had set the time I put on my snow shoes and went across lots to the neighboring town of L., where my chum lived. I found him ready and willing to go with us. I told him to take snow shoes, a gum picker, an ice chisel and some fishing lines, and we would furnish everything else.



OUR MOOSE SLED.

We were ready to start the next morning at 4.30. My father had 2 horses hitched to a straight sled, 12 feet long, boarded around the sides to hold the various articles on. We had snow shoes, a Winchester rifle, ice chisels, and a moose sled, blankets, and provisions to last a week. Four miles were through an evergreen swamp, impassable in summer. The thousands of small spruce trees, rich, dark green, against the snow, were extremely beautiful.

About 9 o'clock we reached Sam Parsons' farm, where we left our horses and sled. We then packed our provisions and blankets on the moose sled, put on our snow shoes, and began a 6-mile tramp over Carry mountain to Big Carry pond. We followed an old snow shoe track, made while the snow was thawing. On such a track the snow packs down, so that when it freezes it makes good traveling. After many mishaps and falls we reached the pond. There we found an old camp built by togue fishermen several years before. We cleared out the snow that had drifted in, prepared firewood and cut a hole through the ice for drinking water. When that was done it was nearly dark. Parker went to a small cove and cut a few holes that night. When he came back he had a beautiful togue that weighed 3½ pounds. We fried it for supper and ate it from pieces of birch bark. At 9 o'clock we turned in.

In the morning I was the first one up, and went to the pond to try my luck before breakfast. I caught 3 togue, which I carried to camp and we fried them for breakfast. All that forenoon we cut holes and

set lines. It was rather slow work, for the ice was 3 feet thick. At noon we had about 50 holes cut, and had caught perhaps 12 togue and one square-tailed trout. After noon, leaving Parker to watch the lines, Father and I went to the Middle Carry. We did not catch any togue there, but got about 50 small brook trout in 2 hours.

While we were there an old trapper came across the pond to us. He showed us a fine otter skin and 3 beaver skins he had taken from his traps. He said he and his partner, Sam, had been trapping in the woods around there for 20 years. He opened a meal bag that he had strung over his shoulder and showed us about 50 trout, which he was taking home to his family, but they were much larger than any we had caught. He said the pond was the head of the Middle Carry and had not been much fished. In the summer it was so marshy fisherman could not get to it, and few knew where it was. As he left the pond he remarked that we could not catch fish after 12 o'clock. We laughed at him, but not a trout could we catch after noon. The reason I do not know; but it did not matter, as we had all the trout we wanted to carry, 192 in all. I think the lot would have weighed 75 pounds. About 3 o'clock we started for the camp at the Big Carry. My face was so sore that every little twig and branch that hit it cut through the skin. At length we arrived in camp, tired but happy.

Next morning we took in our lines in the big pond and found a few togue on them; also that somebody had taken 20 of the lines while we were away. The thief had come on to the pond from the Middle Carry and had gone back the same way. It was no use to look any farther.

Parker and I picked gum the rest of the day while Father stayed in camp. We got 4 or 5 pounds, of poor quality. During the night it rained, and froze enough to make the snow shoeing good. In 2 hours we were back to our team and ready to drive home.

REVERIES.

ARTHUR HAZLETON.

When the winter storms are howling,
And the snow is drifting deep;
When the fields are bleak and barren,
And all nature seems asleep;

Then I love at eve to linger
By the fireside's genial glow,
Dreaming of the scenes of summer,
Sylvan scenes where rivers flow.

And again I roam, in fancy,
In the woods, where squirrels play,
Or by sparkling streamlets wander,
Fishing all the livelong day.

Then I take my rod and tackle,
Fondly look them o'er and o'er,
As I hear the water plashing
On a lake's enchanted shore.

Oh, sweet mem'ries! Dream of summer!
How they fill my heart with cheer!
Round me float the balmy breezes,
Though 'tis winter, cold and drear.

First Member: Don't you think we should read a book that will do us good?

Second Member: But how can we? We must be up to date, you know, and there hasn't been anything published for years that will do us any good.—Judge.

FOUR GOOD CAMERA SHOTS.

NAME OF PHOTOGRAPHER UNKNOWN.

RED TAILED HAWK. (*Buteo Borealis*)

AMATEUR PHOTO BY CHAS. A. REED

BLUE BIRD ENTERING ITS NEST.

AMATEUR PHOTO BY ANDREW EMERSON

A PORTRAIT.

Highly commended in RECREATION'S Fifth Annual Photo Competition.

AMATEUR PHOTO BY J. B. BROKAW.

HORNED OWL.

Highly commended in RECREATION'S Fifth Annual Photo Competition. Made with Eastman No. 4 Cartridge.

A STRANGE INCIDENT

W. H. NELSON.

Yesterday, as "twilight was deepening with a tinge of eve," I sat in my den idly poring over an old war book, dreaming for the thousandth time the fiery dramas of 40 years ago, when through my open window was thrust a head from which issued a voice:

"Nelson! Come out here, quick! I've something great to show you."

It was my friend, Mr. Freet, sportsman, friend of RECREATION, and gentleman. He was evidently in a state, and as we hurried out together he reiterated:

"It's great! Something for RECREATION." Presently he said in calmer mood. "A flock of quails in one of the trees, right here in the heart of the city. They are calling. Listen!"

Just then, from the tree he indicated, out against the sky they launched themselves, flying over the houses, going Westward, in the direction of the White House, 6 of them. They flew well above the housetops, and in a moment disappeared. How came they to visit the city? Was it to present a petition to "Teddy" for protection against the game hog? We have read in RECREATION of eagles, hawks and wild geese dropping into the streets of cities, and I have known, personally, of deer passing through a Colorado town, and of a cinnamon bear being killed in the heart of a mountain town in the West; but to have a covey of quails fly into the heart of a great Eastern city coppers my king.

The street lamps were lighted and electric globes were shimmering everywhere. Was it, to them, the dawn of a new day? Had the lights bewildered them?

Mr. Freet and I stood and watched them disappear toward the West, and pitied them heartily. They seemed so small and helpless, so friendless and so persecuted. In all this great city there were, perhaps, not 100 men who, seeing them, would not have thirsted for their blood. From the bottom of my heart I rejoiced to hear Freet say, "Poor little fugitives! I hope they'll reach safety"; but I realized that with their limited powers of flight they would perhaps fall long before they could pass the thronging dangers, and then, in the merciless hearts of men they would meet short shrift.

Perchance "He who careth for the sparrows that not one of them fall to the ground" neglected may have guided them to shelter and safety. I hope so.

I am glad to find in Mr. Freet a true disciple of the new gospel of game protection. He has been, from its infancy, a constant, enthusiastic reader of RECREATION, and is an energetic, persistent apostle of decency in the field; has sent in numerous lists of subscribers, and on all occasions preaches the New Covenant of the L. A. S. Where one so often comes in contact with bristles it is a pleasure, now and then, to meet a man whose skin is smooth.

AMATEUR PHOTO BY NORMAN POMEROY JR.

WE WANT OUR BRE-E-E-A-A-A-K-FAST.

WILL A BULL MOOSE FIGHT?

DR. A. C. SHOEMAKER.

I have several times noticed, in RECREATION, accounts of bull moose showing fight. I have also heard lumbermen tell of being treed by angry moose that disputed their right of way in the woods.

As bearing on the point, I will narrate my experience last fall on the head waters of the Little Tobique, at Nictan lake, New Brunswick.

A friend and I were there 4 weeks, hunting moose and caribou. My friend got a moose the morning after our arrival, but I was not so fortunate. One morning my guide, Dave Cremin, was paddling me up the lake, keeping about 50 yards from shore. We heard a sudden crash in the brush. The noise lasted but an instant. Dave sounded a call on a moose horn. There was no reply. The call was repeated, and immediately we heard something coming with a rush as if to land on top of us. The animal stopped near the water's edge, hidden by the brush. The guide took the moose horn and by gently splashing in the water produced sounds exactly like those made by a large animal while wading. That was more than the bull could stand. He left the cover and walked 50 or 60 feet into the water, coming within 75 yards of the canoe. After a long look at us he turned and went back to shore, where we heard him grunting loudly. He came out again, a little farther up the lake, and looked us over once more. Then he made off toward the hills, occasionally giving an angry grunt, as if he resented the awakening from his dream of love. I did not shoot at him because he was an undersized animal with small, nubby horns.

Every morning and evening for a week we paddled around the lake without seeing another bull, although there were always 2 or 3 cows feeding in the inlet.

At last the guide proposed we go to Foster's caribou holes—a chain of small, deadwater ponds, 6 or 7 miles from Nictan camp. Accordingly we packed a small shelter tent, sleeping bags and provisions for several days, and started. Arriving where we were to camp, we left our packs and went quietly to the water holes. There was no moose in sight, though one had evidently just left, as the water was soiled and there were fresh tracks. For the remainder of the day, while Dave put the camp in order, I watched that hole faithfully. The next morning I was there before light, but not even a cow moose put in an appearance. Late in the day we went the length of the deadwater; there were plenty of signs, but nothing else.

About 7:30 that evening, just as the full moon rose over the ridge behind us, we heard a moose calling. The sound came from the direction of the water holes, ¼ mile away. While we were arguing whether to go there or not, the call was repeated loudly. In a few minutes we heard the long, weird, plaintive call of a cow moose, which was at once answered by the bull.

I immediately took my rifle, and telling Dave to follow, went in the direction of the sounds. I thought that by going quietly along the deadwater we might get near enough to the bull to obtain a fair shot in the bright moonlight. When we got in the woods, however, it was so dark we could keep on the trail only by feeling for the blaze marks on the trees. In that way we stumbled along, sometimes on the trail, but more often off, until we came within 200 yards of Foster's pond. There we heard something coming toward us. The guide was beside a big spruce and at once stepped behind it. I remained perfectly still, standing in the trail.

Presently a dark object appeared on the trail and stopped about 60 feet from me. I took a step toward the guide to ask if he thought it was a cow or a bull. When I moved, the animal disappeared to one side of the trail, but its place was immediately taken by another. That was surely a bull, as we could distinguish the horns when he put his nose to the ground and raised it again. I wanted to shoot, but the guide told me to wait; he was apparently more interested in the actions of the animals than in my shooting. Finally he said, "Let him have it!" I threw the gun to my face and fired.

Almost before I heard the report I saw the moose coming at me like a rocket. If the brute had been as large as he looked to me then, he would be the record breaker of the century. With ready courtesy I tried to step aside and let him pass. My foot caught, I fell, and the animal went directly over me. In an instant I was up again and shooting, and had knocked him down. "Come on," cried Dave, "and finish him!" Before we got near, the moose was up and off. Again I fired and knocked him down, only to have him spring up and run. I put another bullet in him and down he went the third time. That left me but 2 more cartridges. We were almost to the moose, when once more he got up and ran. I fired my remaining shots at him, but did not think either took effect. By that time the guide was dancing like a madman and swearing like a pirate,

while I stood with an empty gun, calling myself a fool for having left camp with only 5 shells.

Dave wanted to follow the animal, but I could not see what we stood to gain by that, our only available weapon being a small hunting knife. I knew the moose was badly wounded, and, if not disturbed, would not go far. We decided to return to camp and take up the trail in the morning.

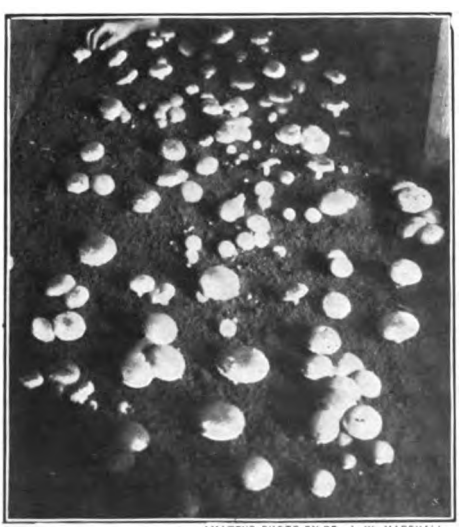
Neither of us slept much that night. I did fall in a doze and was dreaming that a big moose was carrying me off on a marvelous rack of horns. What became of me I don't know, for Dave called me to breakfast. By the time that was finished it was light enough to travel. We had no difficulty in picking up the trail, and, within 50 yards of where he went down the third time, we found the moose, stretched at full length, and dead. He had run in all about 150 yards after I first fired, but it was in a circle, and he lay within 60 paces of where we first saw him.

One shot had hit the point of his shoulder, smashing it to pieces; 2 had entered the hips, reaching the lungs; and another had struck back of the shoulder, going through and badly tearing the lungs. Evidently he had run until he fell dead. I used a .303 caliber Savage.

Now what I should like to know is this: Did the moose charge down the trail with the intention of attacking, and knowing what he was up against?

A MUSHROOM BED.

In July RECREATION was an account of some person at Akron growing mushrooms. You printed also a photo of the beds. Thinking another picture of mushrooms might be interesting I mail you a photo of the mushroom bed in our cellar. We



AMATEUR PHOTO BY DR. J. W. MARSHALL.

have mushrooms for ourselves every day in the year. The accompanying photo shows how they look now, and is an amateur picture taken by my father, Dr. J. W. Marshall.

V. C. Marshall,
Owen Sound, Ont.

THEY WILL RETURN.

REV. F. C. COWPER.

The days of the hunt are past and done,
The fun and the frolic are over;
I lounge by the fire; high hangs my gun,
While curled on the hearth sleeps Rover.

The crack of the log gives cheer to me,
I care not for blasts that are blowing:
The smoke of my pipe floats lazily;
I stare at the embers glowing.

Ho! Rover! Heigh! Rover! What's that?
What troubles are wove with your dreaming?
You quiver, you whine, my good hound pup;
The scent must be lost, to all seeming.

I, too, have regrets of hunting days,
Though the pelts swing thick from the rafter;
But the winsome weed my grief allays,
And I shed only tears of laughter.

The winter will wane, the months slip by
Of the meadow hay and the clover;
Then, ho! to the mountains will I fly,
With my gun, my pouch, and my Rover!

Professor: If a person in good health, but who imagined himself sick, should send for you, what would you do?

Medical Student: Give him something to make him sick, and then administer an antidote.

"Don't waste any more time here; hang out your shingle."—New York Weekly.

HUNTING IN THE ARCTIC ROCKIES.

A. J. STONE.

I left Fort Norman in July with my white man, 2 Indians, Donnel and Clise, and some dogs, for pack animals, bound for the mountains North and West of the Fort. We traveled 50 miles down the McKenzie in a large birch bark canoe before starting on our march across the muskeags for the mountains.

A strong head wind was blowing when we started, and soon increased to such a gale as to cover the river with whitecaps and drive us ashore, where for 48 hours we were storm bound. This was an unwelcome incident, because we had but scant store of provisions.

However, at length wind and river calmed, and we paddled all day and late into the night, only putting to shore to make tea. At 1 a. m. we reached the point where we were to land and begin our march, a 3 days' job for the natives. A 2 hours' nap and we were off for our trip to the mountains. Notwithstanding the leanness of our larder, our packs were quite heavy. What with camera and plates, traps for small mammals, 65 pounds of salt for curing large skins, piles of moccasins, cooking outfit, canvas for shelter, changes of clothing, guns and ammunition, we sank to the knees at every step.

I was determined if possible to beat the "2 sleeps," 3 days' record, knowing full well what I should be obliged to endure on that trail. And such a trail! Many times it faded utterly, and my Indians were forced to put down their packs and search for it.

Leaving the river, we passed first through a fringe of small spruce, ½ mile wide, and then plunged into a dreary, monotonous, desolate, moss covered waste, never steady on foot till we reached the mountains. One is never certain of his footing. One moment he feels solid, then down he goes; again he fancies he is about to step into a hole and careens his body accordingly, only to step on a concealed stick and rise instead of sinking.

Willow and scrub spread everywhere. The scrub lies athwart your path, the willows interlock. Whatever direction you take, everywhere are moss hummocks and pools. I often wondered at my endurance. Small black flies and mosquitoes swarmed everywhere. I was their meat. They were tired of Indian blood. The white man with me had grown up in the country and was nothing new to them. I was a delicate morsel, and on me they fastened. For a while I fought them, but it was no use. They were too many, and to wear a head net was impossible in that brush. I had but one hope, the mountains; and toward them I strained, panting and sweating from exertion.

Before reaching the mountains we skirted a number of small, circular lakes. Not many of them contained fish, but ducks and loons with their young were abundant. The water, which we had to wade, was often very cold, as it rested on a solid bed of ice, and our feet and legs would become numb as if paralyzed.

After one night's sleep on a corduroy bed made of brush, the second afternoon we came to an extensive field of sand. Beyond that, a mile off, rose the abrupt mountains, and at no great distance I could see a deep, rugged canyon piercing the range. That was the Carcajo river. Debouching from the mountains, it spreads, in times of freshet, over the flats a mile wide. A soft breeze blew across the sandy waste on which we had entered, and as we proceeded we struck a current of cold air, which cleared away our tormentors. Relief! U-m-m-m! Until one has endured the tortures inflicted by the insect pests which swarm here he can form no idea of the sufferings they produce. My eyelids were swollen into great rolls; my hands, face and ears were raw.

Leaving our comfortable sand plain, we soon reached and crossed, in succession, several branches of the Carcajo, and presently came to the main stream. The Indians reported it very low and we stripped and waded it. The current was rapid, probably 10 miles an hour. Our method of making the passage was of Indian invention and was as follows: A long pole was found, and each clung to it as we waded in abreast. In that way the upper man broke the current and the others supported him. The water was not very cold, and I took occasion to lave my poisoned flesh in the cooling stream. We camped at the foot of the mountain where the unchained river breaks from its granite prison and rushes to the plain. Latitude 65° 45′ N.

Gazing along the high walls of the canyon I discovered a moving speck of white, which under the glass proved to be a sheep. Another and another! Already game in sight! Had I possessed wings it would not have been far to them, but as I must travel on foot the journey was long and the way difficult, so I turned in for a night of comfort and rest.

Next morning we climbed over a diffi-

cult ascent for 2,500 feet, when the country broke off into a succession of ridges and buttes, like the bad lands of Dakota. Farther on a series of higher ridges with little muskeags between, and at least a higher and still more rugged country. There, in a canyon, provided with scrub, we made camp, believing that would be our headquarters during our hunt.

Next day 3 sheep were killed. The first was lost over a precipice. The second and third we got. The 2 following days we drew blanks. Thereafter I organized side trips. The first, of 4 days, only brought us one specimen, but the second, of 8 days, resulted in 10 good catches. Then a long period of hard luck; then better fortune.

That was no pot hunters' paradise. Animals were scarce and wild, yet persistent effort filled our main camp with specimens, clean and perfect, with all the bones necessary, and all properly tagged and tied up in bundles. In one direction only our efforts were fruitless. I could procure no caribou. In late fall and winter they go into that country, but not in the summer. During that season they range far back in the rugged recesses of the mountains. I made a strenuous effort to reach them and marched straight toward the heart of the mountains for 2 days, crossing a stream which nearly wound up our earthly affairs. We plunged in just above a roaring cataract and though we plied our accustomed tactics of pole and line, we were almost borne off our feet 100 times. When we finally reached land I lectured the fellows heartily for rushing so hastily into danger. The second evening we reached a stream that we could not cross, and, reluctantly abandoning our quest, returned to main camp.

There I discovered that I was suffering from blood poisoning. My hands were swollen and covered with painful ulcers. To carry all our specimens on our backs was impossible, so we decided to construct a *cache* on the Carcajo, where dog sledges could reach them in winter. We set about the task at once, building it on a level bed of rock above high water mark. We carefully arranged the specimens inside so as to admit air, covered them with canvas and oiled duck to keep them dry, and above all that put a double layer of timbers, piling stones around and above the whole.

My hands grew worse; the disease was spreading to other parts of my body, and I found it necessary to hasten back to the Fort. Despite my condition, I was in excellent shape for travel, and during the long, arduous journey across the muskeag I did not once feel fatigue. For nearly 40 days I had subsisted on sheep alone, yet I experienced no ill consequences. The quantity of fresh meat, if fat and tender, which I could consume was wonderful. A fat rib from an adult male nicely roasted before a camp fire is a sweet, refreshing morsel, though a round of sucking doe is not quite so palatable. The flesh of the lamb is insipid. The brains and tongues all fell to me and were good.

* * * * * *

Strikingly noticeable in the mountains is the absence of flowering plants. Only a few varieties were seen.

Not a single field of snow was crossed and there was no snowfall while we were in the mountains, but soon after leaving them we could see them clothed in white. The weather was fine; only a few cold rains fell, and now and then a thunder shower visited us. But smoke and fog at all times obscured the view and prevented me from securing photographic scenes.

Neither grouse nor ptarmigan were met. We sighted one caribou, the only animal beside sheep seen on the whole trip.

The muskeag is fairly well stocked with moose. Black bears are also found there; wolverines, marten, lynx and beaver along the small streams and in the lakes. A few grizzlies are found in the mountains. Caribou are abundant in some places, but just what kind I am unable to say. I hope later to be better informed.

When I reached the Fort I was in frightful condition from the blood poison. Addressing myself faithfully to the task of doctor and nurse I soon pulled to healthy levels. It seemed delightful to be a well man once more.

My Indians did well as Indians go. Most of such people are not clean, but as filth organizers mine could give cards and spades to any others I ever saw. To live among them, to be compelled to use them, and to witness their loathsome habits is one of the most abominable features of Northern travel.

The 1st of September found the country in autumn dress. Making sledges, snowshoes and other preparations for winter for Great Bear lake and the Copper mine was then the life of our camp.

Harold: You shouldn't wait for something to turn up, old chap; you should pitch right in and turn it up yourself.

Rupert: But it's my rich uncle's toes, old chap, that I'm waiting for.

TIGER HUNTING IN INDIA.

C. E. ASHBURNER.

Although only the 15th of March, the weather was so hot that dinner was served in front of the row of tents which had formed our home at Gurwaryhaan for nearly a month. If we dined with no roof over us but the Indian sky it was not because we were in any sense roughing it. Our commissariat officer knew his duty too well for that. Fifty miles from the nearest town, we fared as luxuriously as if we had been in London or New York.

Though the silver and glass had been transported for miles in bullock carts over rough roads, not a scratch nor a chip bore witness to the fact. Our Portuguese cook was a prince among cooks, and with a ring of stones in lieu of a range, could turn out a dinner fit for the most fastidious.

Now to the diners came the dignified Mahommedan butler and said gravely,

"A big tiger near Oobra, sahibs. She kill 2 bullocks and one old woman this morning."

Orders were given to our Bhul shikari to take his men out early next morning, find the tiger's tracks and watch the jungle in which she was until our arrival. Guns, rifles and cartridges were examined and given over to the care of the head shikari who was to accompany us.

By 5 o'clock next morning we were all astir; but before starting I will introduce my companions. First, our generous host, whom I will call Brown. Not more than middle sized, he was strong and full of dogged British pluck. "The sort of man to have at your back in a row," I once heard him described.

Of Mrs. Brown, it is only necessary to say she was worthy of her husband, and just the wife for a man whose life was spent mostly in the wilds.

The third of our party was a lank, bony young fellow, a captain of cavalry. No horse was too difficult for him to manage, no country too rough for him to ride over; but he was too reckless, when excited, to suit most sober minded shikar parties. Then there was Tompkins, a boy of 18 years, who had been more than 6 months in the country without learning a dozen words of the language. Having on one occasion succeeded in slaughtering a fawn, he considered himself a great authority on every subject connected with sport. This youth had been consigned by his father to Brown's care, and should before this have passed his first examination in Hindostani, and have joined a native regiment. Finding life pleasant and his quarters good, he did not trouble himself to study, and was still unprepared for his examination.

The dream of my life had been to visit India. Having at length attained my desire, I considered myself lucky beyond expression in having received an introduction to Brown and his wife. To be introduced to a man in India means that you share his house or camp, eat at his table, ride his horses and generally enjoy yourself as if you were his oldest friend.

At last we were off just as the sun rose. First down a steep path to the river, then in single file across it, a scramble up the farther bank, and we came together in the broad road cut through the jungle. We saw the usual jungle sights: the track of a bear; a magnificent nilgau, or blue bull; a herd of spotted deer; monkeys that swing from bough to bough; and peacocks, parrots and innumerable other birds on all sides.

We kept on at a steady canter, being anxious to reach the scene of action as early as possible. We swept past a large native village, with its high walls and narrow gateways, recalling the days when the villagers lived in constant terror lest the nearest Mahratta chieftain should swoop down upon them. At last we left the road, and half an hour's riding over rough ground took us to another village. Beyond that we came to a magnificent grove of mango trees, under which we found a small camp pitched by our servants and refreshments awaiting us.

Near by stood Brown's head shikari, who long before daylight had sent his men in search of the tiger's lair. He reported having followed the brute into a dense thicket of perhaps 20 acres, which was then surrounded by men stationed in trees about 50 yards apart. This plan of ringing a tiger is called getting him into a ghira, and when surrounded in this way the chances are 20 to one he will meet his fate. He is driven from the covert toward the sportsmen either by elephants or by men walking in line and tapping the trees. If he is inclined to go the wrong way, the native nearest him has merely to make a slight noise; then the animal either retreats or moves in another direction until brought up by a bullet.

There we were joined by Captain W., who brought a good shikar elephant well known throughout the district. This arrival gave us the use of the elephant for beating purposes, and made another gun available.

After ordering the formation of another ghira, outside the first one, we took a hasty luncheon and, leaving our horses, walked to the neighborhood of the ghira. Arriving there, we were stationed by the shikari at places where he said the tiger would probably pass. Then Captain W. mounted his elephant, and, rifle in hand, rode into the ghira. Mr. and Mrs. Brown were seated on a native cot fastened 12 feet from the ground in a tree growing out of the bank of a dry water course.

In the middle of the jungle the elephant gave notice of the proximity of the tiger by trumpeting and by striking his trunk on the ground. At last our enemy was afoot and trying to break out of the ring. At every point he was driven back. This went on for 20 minutes, during which time Captain W., on the elephant, could not, owing to the density of the jungle, get a shot. The tiger then jumped into the dry watercourse and walked toward Brown's station; but when within about 70 yards he climbed the opposite bank and followed along the top. Just opposite Brown's position was a clear space where he hoped to get a shot at the tiger as it passed. On came the tiger, walking quietly, and Brown was about to fire, when, to his surprise, the tiger fell dead.

Tompkins, who was over 100 yards away, had seen the tiger, and, contrary to all sportsman's etiquette, fired at him, notwithstanding the animal was opposite another man. It is also contrary to rule to fire at a tiger more than 40 yards away, unless he is escaping, as at over that distance there is no certainty of killing him. A wounded tiger is extremely dangerous. Had this one been merely wounded we should have been obliged to beat him up at the risk of injury to some of our men. When spoken to on the enormity of his conduct Tompkins said that the tiger was so large it seemed impossible to miss it. He appeared well satisfied with himself, notwithstanding the plain talk he heard on that occasion.

The dead tiger was strapped on the back of the elephant and sent to camp, while we returned to our tent in the mango grove where we had left our servants and horses.

Before we arrived we received word by a messenger that 2 friends of Brown's had a wounded tiger in a ghira in the vicinity, and wished him to bring his party and help finish the beast. We were only too glad to join our forces to theirs, and sent word to that effect. When we reached their camp we learned that they had wounded a tiger early in the morning, but having few men and an inferior shikari, could not succeed in killing their game. We lost no time in making the necessary arrangements for walking up the wounded tiger, it not being safe to attempt to drive him out.

It was agreed that 3 men should take one side and 3 the other, each with a trustworthy Bheel behind him to carry spare guns and ammunition. The rest of the Bheels we sent around the jungle in which the tiger lay, to get up into trees and act as stops. Giving them time to take their positions, we walked into the jungle toward where the wounded tiger lay. We soon had notice of his whereabout. The trees under which he lay were full of monkeys shaking the branches over his head and swearing at him vigorously. We walked close up, but the beast would not charge, though he greeted us with many roars. Finally he charged outright in front of Brown, who fired at his chest as he bounded toward us. The express bullet hit him fairly in the center of the chest, and he turned a complete somersault, striking me with his hind quarters and knocking me down. I was naturally much startled and had quite enough of tigers for one day.

Hopkins: Old Brown is going to marry off one of his daughters pretty soon.

Popkins: How do you know?

Hopkins: The gas metre man told me.—Exchange.

A FREAK ELK HEAD.

I send you herewith a photo of a 3-beam elk head. This head is certainly a curiosity, having 3 separate beams, which start from distinct burrs. The right beam is a good 6-pointer; the main or upper left beam comes from the head about an inch and a half lower down than the right beam; the third beam has a separate bar below and nearer to the center of the forehead than the main left beam. A close examination shows that this is not due to an injury received while young, as some might suppose, but is a natural growth of the skull. The man in this picture is Geo. M. Glover, a well known guide of this section, who has worked with us a good deal. This elk was killed about a year ago along the rim of Fall River basin, in Unita county, Wyoming, and is now in the possession of Col. S. Y. Seaborn, Detroit, Mich. I have lived among the elk many years, and have hunted and guided in what are considered the best elk districts in the Rocky mountains, but I do not know of any other head like this.

A FREAK HEAD.

Albert Hill.
Alexander, Wyo.

NIMROD'S THOUGHTS.

Old Nimrod paused at Nature's shrine,
As music sweet from marsh and brake,
By wild fowls' luring voices made,
Filled all the air o'er hill and lake,
In one grand melody.

Nimrod listened, and memories sweet
Filled his heart, by the song revealed;
Memories fair, of marshy streams,
Of forest dells, of camp and field,
In the long time ago.

Nimrod spoke: "I would rather be here
At the springtime flight, or in summer's glow,
Or by the burning logs of a winter's fire,
Where memory pictures come and go,
Than to wear a crown."

AMATEUR PHOTO BY H. H. BOWEN

CRITICAL WORK.
Highly commended in RECREATION'S Fifth Annual Photo Competition.

AMATEUR PHOTO BY A. D. WITT

WAITING FOR LUNCH.
Highly commended in RECREATION'S Fifth Annual Photo Competition.

COLORADO HAS ONE.

I hand you herewith a photograph of Herbert Gardner, of this city, who claims to be a hunter, but judging from the picture, I should not class him as such. I should like you to write him and ask him if this is his killing, made on the Bear River Flats, Utah, in 2 days. If he admits this butchering as his work, should like to have you class him with the rest of your pigs.

C. A. R., Colorado Springs, Colo.

I did write the old hog and ask him if the report was correct, but he evidently

smelt something besides his own filth and declined to answer. No decent man ever thinks of being photographed with such a lot of game in this age of the world. Gardner is one of the old fashioned, backwoods breed and deserves to be branded G. H. on his forehead and on each cheek.—EDITOR.

A young man contemplating matrimonial felicity, took his fair intended to the home of his parents that she might be introduced to the old folks.

"This is my future wife," said the young man, proudly, turning to paterfamilias, who was a canny Scot. "Now, father, tell me candidly what you think of her."

The old man eyed the blushing bride-elect critically for fully 2 minutes, then answered, with deliberation:

"Well, John, I can only say you have shown much better taste than she has."—Exchange.

A POACHING WARDEN.

Not a thousand miles from Ludington, Michigan, there is a game preserve owned, or leased, by the Kinney Creek Game Club. A few weeks ago, in anticipation of the encroachment of poachers, the club decided to hire a game warden to protect their interests, and selected a man from town, named Bates, for the position. The season for duck shooting in Michigan had not opened when the new warden reported for duty, but the first night he was out he determined to do a little poaching on his own account. Accordingly he set out some decoys soon after dusk, seated himself behind a blind, and awaited developments.

Within half an hour he heard a familiar "quack," "quack," and saw some dark objects swimming around the decoys. Mr. Gamekeeper, who should have been protecting the interests of his employers, fired both barrels of his 10-gauge into the flock, bagging 8 of them. Procuring a boat he picked up the ducks and started into town to boast of his prowess.

Alas for the game hog, who didn't know a wild duck from a litter of pigs. When he reached town with his prize, he learned to his discomfiture he had wasted his powder on some tame Pekin ducks belonging to a farmer some 2 miles down the river. There was a grand laugh at his expense, and the expense was increased a few days later when the club received a bill from the farmer for the loss of his ducks amounting to $4.75. It was paid and deducted from the gamekeeper's first month's salary. He isn't shooting any more ducks now, even if the season is open.

Mallard Drake, Chicago, Ill.

THE SNOW PHOTOS.

(See page 18.)

I hand you herewith my dollar for membership in the League, although I need the money for many other things.

Before I began to read RECREATION, I thought I did not have much sport unless I could kill something every hour; but now I more often hunt with my camera than with my gun. I am sending you by this mail some photos of the beautiful snow which has covered everything. It was 4 inches deep on the telephone wires, so you can understand how it clung to everything. It did a lot of damage to fruit and other trees; but oh, what beauty met my eyes on putting up the window shades. I had my camera in less than 5 minutes. The views were taken before the snow was disturbed, early in the morning, and while it was still snowing.

D. H. Darling, Guilford, N. Y.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman

TO RESTRAIN THE INDIANS.

Magdalena, N. M.

Editor RECREATION:

As the time is about ripe for the Indians to come down on their annual slaughtering, I hope some preventive measure can be taken at headquarters. The Indian bureau should stop their agents on the reservations from issuing these hunting passes, when it is against the laws of the Territory that this slaughtering should continue. From reliable parties I hear that one small party of Indians secured about 200 pelts, much of the meat being wasted, no doubt. This was their hunt last fall before the L. A. S. was in force here. It is nothing unusual for the Indians to round up a bunch of antelope and kill every one of them. At least it was not at one time; but antelope are so scarce now it may be difficult to find a bunch. If the agents would use their influence to keep the Indians on their reservations, we should be saved a great deal of trouble, perhaps bloodshed, as our citizens are determined. These agents may share in the spoils, namely, venison and buckskin; as at all the agencies there are small stores, or trading posts.

This is a great game section, but if this slaughter continues much longer it will be anything but a game field. At present our division is not strong enough to cover the entire section, of which we are in the center, or nearly so, but as soon as we are allowed a secretary we shall try to increase the membership. W. P. Sanders.

To Mr. Sanders I replied:

Following is a copy of a letter I have written the Commissioner of Indian Affairs:

Hon. Commissioner of Indian Affairs,
Washington, D. C.

About a year ago I had some correspondence with you regarding the killing of game in New Mexico by Indians. I am now in receipt of a letter from the Chief Warden of the New Mexico Division of the League of American Sportsmen, calling my attention to the fact that a great deal of game was killed by Indians in New Mexico all last fall, in violation of the Territorial laws, and asking that steps be taken to prevent a repetition of such slaughter this year and for all future years. I respectfully request, therefore, that you take up this matter with your agents in New Mexico and that you positively prohibit the issuing of passes for Indians to leave their respective reservations for any purpose during the fall or winter.

You are doubtless aware that the elk is practically exterminated in New Mexico and that but few antelope and deer are left there. I am safe in saying that there are scarcely 200 antelope left in the entire Territory. At the earnest solicitation of this League the Legislature of New Mexico enacted a law last winter prohibiting the killing of elk, deer, antelope and mountain sheep at any time prior to March, 1906. It is believed that if this law can be enforced, even to a reasonable extent, these species of game will rapidly increase, and I trust we may have the hearty coöperation of your department in enforcing this law. The better class of residents of that Territory are deeply interested in this case and a large number of the best business men there are members of this League. They are coöperating with us diligently in our efforts to save the few remaining animals of these various species from extermination and they will heartily appreciate whatever efforts you may put forth to keep the Indians on their reservations. I should be glad to be advised of your action in this matter.

I append the reply of the Honorable Commissioner:

Mr. G. O. Shields, New York:

I am in receipt of your communication of the 23d ultimo. In reply, you are informed that the respective Indian agents and school superintendents in charge of the Indian reservations in New Mexico Territory, have this day been fully advised relative to the statements made in your letter as to the destruction of game in the said Territory, and have been instructed to take such action as may be necessary to prevent, so far as possible, a repetition of the evils complained of in the premises.

W. A. Jones, Commissioner.

It is well known that one of the most serious problems in the case of protecting the wild animals of the far West is that of preventing the Indians from slaughtering the game. Ever since its organization the League of American Sportsmen has been laboring with the Indian Bureau with a view to preventing as far as possible any of the Western Indians from leaving their agencies, under any pretext, in order that they may invade the hunting grounds to kill game there in violation of the State laws or the laws of reason and economy in

native life. As a part of this work I have recently written a circular letter to all the Indian agencies in the Western States, of which the following is a copy:

As you are, of course, aware, the Indians of most tribes in the West get permission from the agents each summer or fall to leave the reservations, under some pretext or other, and when once they go into the game countries they destroy great quantities of game. Some of this hunting is done in close season and some in open season; but, in any event, the white settlers in the vicinity invariably feel aggrieved. Some of them always complain to this office and ask that measures be adopted to stop this killing, whether legal or illegal. There are always 2 sides to every such case and the Indians are entitled to a certain amount of consideration; but the game has become so scarce everywhere in the West and is so sorely threatened with total extermination that all thoughtful men, especially all nature lovers, East and West, are extremely anxious that every precaution should be taken henceforth to reduce the killing, by white men as well as Indians, to a minimum.

You are doubtless aware that, realizing the danger of the total wiping out of certain species of wild animals in New Mexico, the Legislature of that Territory at its last session, in obedience to an urgent request made by this League at its annual meeting 2 years ago, passed a bill prohibiting the killing of antelope, deer, elk and mountain sheep at any time prior to 1906. There is no longer any reason why the Indians should be allowed to hunt in that Territory at any time. There is no game they would care to kill that may be legally killed at any time.

I do not assume to instruct you as to how to handle the Indians under your charge, but I do venture, as the President of this League and as a representative of its 7,000 members, distributed throughout the entire United States, to beg you to do everything possible to prevent the Indians under your charge from killing any of these species of game within the time above specified. I realize that it may be necessary for some of these Indians to leave their reservations at certain times. I also realize that nearly all permits granted in such cases are abused. The majority of the Indians have no regard for law. Neither have they any sentiment on the subject of protecting the game. They care not how soon any species of wild animal is exterminated. It, therefore, rests with white men, and especially with the Indian agents, to do whatever may be done for the preservation of these grand animals.

This League represents the best thought of the whole country on the subject of game protection. You can readily understand this when I tell you that the League includes in its membership the President of the United States, 7 members of Congress, the Governors of 7 States, including your own, the ex-Governors of at least a dozen States and at least 100 members of the Legislatures of the different States. Furthermore, our membership includes hundreds of prominent men in all walks of life.

Added to this, I speak for the 330,000 readers of RECREATION, nearly all of whom are friends of game protection. I say this advisedly, for I have waged such a relentless warfare against market hunters, skin hunters, and game destroyers of all classes, for the last 5 years, that I have alienated nearly all such from my list of readers. On the other hand, I have reformed thousands of men who were at some time or other thoughtlessly destroying game and who have written me that after reading RECREATION a few months they have seen the error of their ways, have quit all such destructive work, and have joined the ranks of game protectors.

I, therefore, earnestly beseech you to coöperate with us in every way possible in this great work and especially to refuse to grant permits to any of the Indians under your charge to leave their reservations in any case where there may be the least suspicion that they will slaughter game when they get away. If you will give us your assistance in this way, you will thereby merit, and I shall see that you are accorded, the hearty approbation and the thanks of every one of these thousands of good men I have mentioned. Should be glad to hear from you on this subject, and shall await your reply with keen interest.

Sportsmen and nature lovers of the far West are again requested to notify me of any cases that may come under their notice of Indians hunting off their reservations in violation of law. In order to make such reports effective with the Indian Bureau it is necessary that detailed information should be given. If possible the names of the Indians should be obtained. In most cases this is impossible; but in every case the complainant should ascertain to what agency the Indians belong, where they have been hunting, dates on which the killing was done, and all data possible. In every case where such reports are made to me I transmit them to the Commissioner of Indian Affairs, with a request that the agent giving the permit may be called to account and restrained, if possible, from giving passes to such Indians in future to leave their reservations.

The Indian Department is kindly disposed toward efforts of this character to

preserve the wild animals in the far West and most of the Indian agents themselves are with us in sentiment. If, therefore, those interested in this work will make such complaints in every case that comes under their notice, the unlawful killing of game by Indians may be rapidly curtailed and eventually broken up.

Following are copies of the replies which I have received to date:

Fort Belknap Agency, Harlem, Mont.
Mr. G. O. Shields, New York:

Aside from being a reader of RECREATION and a consistent lover of sport, I fully realize the importance of protecting game in every way possible. Acting in an official capacity, I have explained to the Indians of this reservation the importance of preserving game and I frequently importune them against its wholesale slaughter. They seem to understand and appreciate the condition, and while parties adjacent to the Fort Belknap reservation have complained in the past that our Indians leave without permission and kill game at all seasons, I have always been able to trace these depredations to the various bands of nomadic Cree Indians who infest this State, and not to our Indians, who are made scapegoats and are sometimes unjustly punished. I give you my assurance that I shall at all times heartily coöperate with your splendid organization, both personally and officially, in keeping down the destruction and willful slaughter of game. No passes are given to Indians in large bodies to leave this reservation for the purpose of hunting, and as our police are active and vigilant I can safely say that no violations of game laws occur among these people.

M. L. Bridgeman,
U. S. Indian Agent.

Crow Agency, Mont.
Mr. G. O. Shields, New York:

I am in perfect accord with the sentiment expressed in your letter. As you state, it is an undeniable fact that there are 2 sides to the question. The Indian side of this question is entirely different from that of the settlers making complaints from time to time. To begin with, under the treaty with the United States entered into between these Indians and the Government, in 1868, the privilege was extended to these Indians of hunting on any unoccupied Government lands, no limit of time being given or season stated. The Indians of this reservation, however, observe the game laws to a greater extent than do many whites surrounding the reservation. I do not believe any of the Indians have killed antelope since the passing of the act by the Legislature, mentioned by you in your letter. A hunting party of Indians seldom leaves this reservation, and then only in open season. I am always glad to coöperate in the preservation of what little game is left, and should be glad to hear from you at any time in the future.

J. E. Edwards,
U. S. Indian Agent.

Kiowa Agency, Anadarko, Okla.
Mr. G. O. Shields, New York:

The Indians of this agency never leave their reservation to kill game. There is but little large game left in this section. The Indians who have lived on the reservations of this agency do but little hunting of any kind. The country has been justly famous for quail and chicken shooting, but there is reason to believe that the day for such sports in this section will soon have passed. The whites that have come here incidental to the opening of this reservation have had no respect for game laws of the Territory, and have killed the birds for subsistence without remorse. I respectfully suggest that you make an appeal to the Territorial authorities to stop this wanton destruction of the birds. While I remain agent for the Indians I shall endeavor to prevent violations of game laws on lands allotted to the Indians and all agency reserve lands. Indians seldom kill the small birds. I am under the impression that the Territorial authorities have recently been considering the matter and appointing wardens when applied for.

James F. Randlett,
Lt.-Col. U. S. A., U. S. Indian Agent.

Tongue River Agency, Mont.
Mr. G. O. Shields, New York:

I am fully in accord with you in your views with regard to the indiscriminate killing of wild game by Indians or others. For the past 3 years I have given no hunting passes to the Northern Cheyenne Indians, and few other passes to visit distant reservations, as I am satisfied that the frequent visiting of Indians from one reservation to another has a great tendency toward keeping up their nomadic mode of life, which is a great drawback to their civilization.

You may rest assured I shall use every endeavor to prevent the Northern Cheyennes from killing or in any way molesting wild game of any kind. These Indians will be kept on their reservation as far as possible.

J. C. Clifford,
U. S. Indian Agent.

Fort Peck Agency, Poplar, Mont.
Mr. G. O. Shields, New York:

I am in full accord and sympathy with sentiments contained in your letter. For 3 years past I have refused permits to

Indians to hunt either in the open or the closed season. I have also caused the arrest and conviction of Indians killing game out of season. As you say, the Agents on the different reservations could in a large measure stop the wanton destruction of game by Indians. I will cheerfully assist your association in any way I can. I have been a resident of Eastern Montana 20 years, and have seen with sorrow the extermination of large game. The Northern part of this reservation is a great rendezvous for antelope during the winter, and I will see that the Indians leave them alone.

C. R. A. Scobey, U. S. Indian Agent.

Sacaton, Ariz.

Mr. G. O. Shields, New York:

I am pleased to say that the Pima, Papago and Maricopa Indians under my charge, numbering about 9,000, are strictly subordinate to the agent. In no case have I had any complaint of their violating the game laws. It shall be my pleasure to coöperate with the League of American Sportsmen in enforcing these laws. I am careful in giving the Indians permits to leave the reservation, and in guarding against any violation by them of the Territorial laws. I have no fears of their violating the game law. They are obedient to instructions, a peaceable and law-abiding people.

Elwood Hadley,
U. S. Indian Agent.

Nez Perce Agency, Spalding, Idaho.

Mr. G. O. Shields, New York:

The Nez Perce Indians are, by the courts, declared to be citizens of the United States. They can not be restricted from leaving this reservation and going wherever they please and whenever they please. The only way to get at them is by enforcing the State law against the crimes of which you write. I have cautioned, admonished and advised these Indians to be careful in the slaughter of game, to use all of the meat and hides, wasting no part of said game, and to kill only such as they actually need for their own consumption. I assure you I have your cause at heart, and will do all I can for the protection of game in this section.

C. T. Stranahan, U. S. Indian Agent.

Cheyenne and Arapaho Indian Agency,
Darlington, Okla.

Mr. G. O. Shields, New York:

Nothing would give me more pleasure than to comply with your suggestions and request, if the case in point had any bearing on this reservation; but it has not. The Cheyenne and Arapaho country was thrown open to white settlement in 1892, and no game to speak of abounds. There are some birds and small game in the sparsely settled districts, but that is all, and every effort is made to enforce game laws. Yours is most certainly a laudable undertaking, and I wish you every success.

Geo. W. H. Stouch,
Major U. S. A., U. S. Indian Agent.

Cheyenne River Agency, S. Dak.

Mr. G. O. Shields, New York:

I concur in the views expressed by you. It has been my policy since assuming charge of this Agency to grant no passes to the Indians of this reservation for the purpose of hunting beyond the borders of this reserve at any season of the year, nor permit them to carry firearms when visiting any other reservation. Since receiving your communication and noting the deep interest manifested in this matter by your association, I shall take pleasure in using every possible precaution with the Indians under my charge to prevent them from abusing the game laws.

Ira A. Hatch, U. S. Indian Agent.

Blackfeet Indian Agency, Browning, Mont.

Mr. G. O. Shields, New York:

The Indians of this reservation do little hunting. The game laws of Montana are severe, the game wardens seem to be alert, and the slaughter of game is minimized. I assure you, however, of my hearty coöperation in attaining the aims of your League.

James H. Monteath,
U. S. Indian Agent.

Rosebud, S. Dak.

Mr. G. O. Shields, New York:

Of course I will coöperate with you in any way possible to protect the game. These Indians do not leave the reserve for the purpose of hunting. They may kill a few ducks and chickens on the reserve, but this is done in season, and the law is not violated in any way.

Chas. E. McChesney,
U. S. Indian Agent.

STRANGE VISITORS.

September 6th I went to Upper Lake Minnetonka to bring my wife and baby from a short outing. The forenoon was mine; I spent it in fishing and got a few bass. While casting, a flock of 6 birds came so close I could positively identify them. They were snow geese (*anser hyperboreus*) in the bluish gray immature plumage. Late in the afternoon my wife and I saw what I thought was the same flock flying back over the train at Spring Park. Where did those birds come from? There is no record of their nesting anywhere in Minnesota, and they were about 8 weeks ahead of their migration.

H. W. Howling, Minneapolis, Minn.

CAMPING OUT AND COOKING.

Cheyenne, Wyo.

Editor RECREATION:

When in the woods I live on common food, good and nourishing, that will last, when taken at 5 o'clock a. m., till I get back at night. Every hunter who goes into the woods is nearly sure of his own meat, if not venison, then rabbits or chickens; but he should also take some breakfast bacon, as a change and for the grease or lard he can get from it.

Everybody ought to know how to make bread, but we find among campers many who can not bake it. Light bread should never be made, because it is a great deal of trouble and necessitates extra dishes. Make sour dough or baking powder bread. Four sour dough, mix flour and water with a half teaspoonful of baking soda and let it stand in a warm place till the dough gets sour. Then use enough sour dough according to the flour you have to make a stiff paste. Mix well, but do not make a rock of it. Roll out and bake in a hot oven. For baking powder bread, make same as sour dough and put 3 or 4 tablespoonfuls of lard in flour for shortening. Make into biscuits. They bake quickly and can be used even after they are one or 2 days old by being dipped in cold water and warmed.

Meat may be fried, stewed, baked, etc. When frying bacon, fry till done, then pour off the grease and cook 2 or 3 minutes longer.

A good way to handle a grouse is to clean it thoroughly, but leave on feathers; stuff with cooked apples and dumplings; paste soft clay all over the bird so that no feathers show; lay in a bed of hot coals and bake till done. Break off the clay and the feathers, skin and leaves will come with it, leaving the pure, juicy meat, which, with gravy, bread, butter, coffee, potatoes, beans, rice and apples will give you a dinner fit for the gods. Rabbits can be cooked in the same way by leaving on hide.

When cooking beans, always pour on hot water; cold water chills them, and they take longer to cook. When baking biscuits in a Dutch oven, care should be taken not to burn them. Make common biscuits and have bright hardwood coals. Do not have a blaze or your oven will get too hot.

Pancakes made of sour dough are good for breakfast. Mix as much flour as you want with half as much sour dough, add salt and mix with cold water into a soft batter.

When frying potatoes have your frying pan 1-3 full of lard or grease and cover it. This steams the potatoes and does not take long.

Venison can be dried by cutting it into strips of 6 x 10 x 2 inches, leaving no bones. It can be dried behind the stove, and is good to take for a lunch. Before drying venison let it lie in saltwater half an hour.

Rice can be cooked in water with a little salt added.

For making gravy, take 4 tablespoonfuls of lard, one tablespoonful of flour, a little salt and pepper. Let the flour and lard brown in a frying pan. When brown, add one cup of water and cook till it thickens.

Canned corn and tomatoes are good to take into camp if you do not need to economize weight, as tomatoes can be served raw and corn can be cooked in 2 minutes in a frying pan with a little grease. Dried fruit should always be taken along, as it is quickly cooked. Dumplings can be made by mixing flour and baking powder, salt and water into a dough. They are good with potatoes, beans, meat, biscuits and rice.

Pie and cakes are hard to make on a camping trip, as eggs are hard to carry.

A delicious variation of the monotony of camp fare can be made with little trouble from simple materials, and will set off the Sunday table in a way to make the rusty old camper, far from the haunts of men, think of his mother's table in the days when he wore linsey-woolsey, and lived in the dear old home, before the world had grown little, and sour, and mean. Slice green apples thin, cutting always across the core. Drop these into a thin batter of flour and water, with a spoonful of baking powder, a pinch of salt and a dash of pepper. Take them out, slice by slice, each in a big, stirringspoonful of batter, and drop them into a kettle of boiling lard. They will swell out like Democratic politicians, and get presently brown as berries. Served with syrup made from sugar, brown if possible, they will add a gusto to the meal which the habitués of Delmonico's never get with their terrapin or canvasback.

Should a surplus of meat be cooked at any time, and allowed to stand cold, it may be utilized with potatoes. Cut both up into small chunks, the meat fat and lean, the potatoes peeled, and stew down in kettle or frying pan, keeping covered and seasoning to suit with salt and high with pepper.

The feast of the camper, on ranges where he may be found, is the roast 'possum, smothered in his own gravy, and garnished with sweet potatoes, peeled, and cooked in the same oven or pan.

Max Brown.

WHY PROTECT COONS?

Baltimore, Md.

Editor RECREATION:

There is much work to be done in this State, and the L. A. S. can be made to

yield an influence heretofore not known. We have a State Game and Fish Protective Association, and while this has been instrumental in doing much good, there is still ample room for great improvement. The L. A. S. could work in harmony with the State forces as already constituted, with increased protection to our game and fish. Our laws relating to the latter need radical changes, while many provisions might be made throwing greater protection around our game. I hope to go down to Annapolis this winter when the State Legislature is in session, and make a personal thing of seeing that amendments are made to existing laws, meant to protect, but which do not protect, and which but ill-advisedly complicate the game laws of this State. They are meant for good, but being the product of men who are not acquainted with the character and habits of the game they would protect, the laws work both a hardship to the game and an annoyance to the true sportsman.

For instance, in certain counties in this State, it is unlawful to catch, kill or trap the raccoon in the months of October and November, nothwithstanding Dame Nature has supplied him with a luxurious growth of hair that he may stay out late on sharp, frosty nights, and be prepared to rest comfortably when the cold blasts of winter come in earnest. But the same law says you can catch, kill and trap him in March! What a travesty on the domestic rights of the poor coon to legalize his or her slaughter in a month when the hair is beginning to shed, and what is worse, at a time when for obvious reasons the mother should receive every protection! It is well known that coons bear young in April. But why agitate the subject by protecting the coon at all? He is here to stay, from Maine to Florida, is hunted but little as compared with other animals, and when hunted is seldom caught. Why fill our law books with game-law rubbish? We want to get right down to the merits of each and every particular case, and drive home that protection which the thing considered may require. I am not hostile to the coon. I am his friend and will protect him in a fair fight, while in a fair chase he is well equipped to successfully protect himself. I mention the above to illustrate that we do not need more legislation, but better. Then, would-be violators will have a wholesome respect for both the letter and the spirit of the law. In the case of the raccoon, I have positive assurance that he does much damage in localities thickly settled, and within reach of his depredations. In one case, a farmer, attracted by my dogs some mornings ago, appeared on the scene and found your humble servant high up in a tree trying to get a coon out of a hole.

"Why don't you cut the tree down?" he called up.

"Don't want to cut any good timber," I replied.

"That doesn't make any difference. Cut every tree in the woods if you can break up these d—d coons."

"But I don't want to break them up; only to catch this one alive."

"Well, I want them broken up. My corn looks as if a gang of hogs had been through it," etc.

Worse than all, the ravages of this animal in breaking up quail and all other kinds of bird nests can never be known or determined. In a chase one morning last summer, I have a witness, with myself, to the fact that a coon which had been chased up an old post, with the dogs below, barking, flushed a mocking bird out of a hole, and while the bird made frantic circles in the air and repeatedly darted down at the coon, that little animal, with both eyes on his tormentor, ran first one paw and then the other in that post hole, then both paws, and taking out 5 eggs, one at a time, ate them as suavely and complacently as a boy would eat peanuts at a circus. So why protect the coon in October and November and murder by legal enactment the mother coon as she gets ready for housekeeping in March?

I should like to join a party of gentlemen some time, to visit the big game country, principally to hunt with a camera. If you know of such parties going out, I would thank you if you would kindly mention my name in that connection.

J. E. Tylor.

CALIFORNIA'S GAME LAW.

Game Warden J. J. Chapman came in yesterday from the Elizabeth Lake country with 2 more quail hunters in tow. He caught Henry Reynolds and John Coe in the act in the fine quail country between Newhall and Lancaster, and took them before Justice Barkley, of San Fernando, who promptly fined them $25 each. This is Chapman's 13th conviction in 2 months.—Los Angeles (Cal.) Times.

Mr. Chapman is doing first-class work, and should be encouraged. So, also, should such judges as Justice Barkley. It is to be hoped others will follow their good example.

For the benefit of intending visitors to California I give a synopsis of the game laws of this State.

The sale of all game except ducks is prohibited.

Quail and duck season: October 1 to February 1.

Dove and tree squirrel season: August 1 to February 1.

Deer season: August 1 to October 1.

Bag limit: 25 quails, 50 ducks, 50 doves, daily; 3 deer during the season.

Does, spotted fawns, antelope, elk and mountain sheep can not be killed at any time.

No game whatever can be had in possession during the closed season.

Night shooting is prohibited.

No game can be transported from the State except for scientific purposes.

No killing of meadow larks except where the birds are destroying crops, and then the owner or tenant must do the killing.

For the purpose of enforcing the laws each county may have a game warden, with a salary of $50 to $100 a month, and not more than $25 extra for expenses.

The limit on the daily bag of ducks and doves is twice what it should be, and no one should be allowed to kill more than 12 tree squirrels in a day. As far as I can learn, nearly all county laws have been abolished since this new State game law was passed. It is fortunate such is the case, as it makes the law uniform throughout the State. The farmers where I was last summer kill doves all the time, and a number put out poisoned grain to thin out the doves. An article on the food of doves might prove of interest to California readers, and I for one should be much obliged for a little light on the subject.

H. V. S. Hubbard,
Los Angeles, Cal.

MR. SETON NOT GUILTY.

One of Colorado's deputy State game wardens, named Bush, arrested John B. Goff, a noted guide and ranchman, who lives near Meeker, and Ernest T. Seton, the well known author, artist and naturalist, in October last, took them before a justice of the peace and charged them with baiting a bear trap with venison. The case was tried before a jury composed of some of the largest tax-payers in the county, and Bush failed to produce a particle of evidence to sustain his charge. After being out only a few minutes the jury returned with a verdict completely exonerating both Mr. Goff and Mr. Seton and characterizing the charge as malicious persecution. Mr. Seton subsequently published the following statement of the case:

To the Editor of the Herald:—

In your issue this morning you quote from Denver papers a statement that is calculated to do me much injustice. You will, therefore, I hope, allow me to correct the impression.

I was arrested in Colorado for being in company with John B. Goff, who was charged with setting a bear trap with venison. In the court it was abundantly proved that:—

First—I never owned or set a bear trap in my life.

Second—That I had not carried a gun or fired a shot or killed or trapped any animal on the whole trip.

Third—That my only weapon was a camera.

Fourth—That Mr. Goff was wholly innocent of the charges made.

Fifth—That the game warden, named Bush, was seeking a little cheap advertising.

Sixth—The verdict was: "We, the jury, find the defendant not guilty as charged, and believe the prosecution to be malicious."

Seventh—It was proved on behalf of Mr. Goff's dogs that they were trained so they would not chase a deer. Interesting side evidence of this is found in Scribner's Magazine for October. In that issue, President Roosevelt, who hunted with Mr. Goff last winter, enlarges on the remarkable fact that these hounds are among deer the year round, and yet are so well trained that they never think of following deer. I may add that my own observation on a hundred different occasions entirely confirms this.

Ernest Seton-Thompson.
New York, Oct. 11, 1901.

No further evidence will be needed by the thousands of readers of RECREATION who know Mr. Seton to completely exonerate him and Mr. Goff.—EDITOR.

BROKE NON-EXPORT LAW.

I enclose clipping from Minneapolis Tribune which may prove of interest to you. Judging from the men having so many trunks they were game hogs as well as evaders of the law. Let us hope they will get the limit. You get so many words of praise for RECREATION and for your splendid work for game preservation that it seems superfluous for me to add any, but I want to tell you how thoroughly I enjoy the best sportsman's magazine on earth, RECREATION, and of my respect for your fearless work in the extermination of fish and game hogs and the encouragement of a manly, self-respecting race of sportsmen.

H. A. Allen, Minneapolis, Minn.

The clipping enclosed by Mr. Allen is as follows:

Frank C. Hale made a clever haul of game that was being shipped out of the State. Mr. Hale is attorney for the game and fish commission, and he had noticed trunks going through Minneapolis, checked from the duck grounds. He secured a bench warrant leveled at the handy gentleman named John Doe, went to the Milwaukee depot and seized three trunks. They were nicely stocked with ducks, fine hammerless guns, cartridges and expensive hunting paraphernalia, and the ducks were at once appropriated. The owners will be enabled to secure their guns and equipment if they will come forward and prove property, and pay a certain sum for every bird shipped. The law evaders will have to do a sum in arithmetic before they ascertain whether they would rather lose the guns or pay the damages.

I reckon that is about the most disagreeable "hail" storm those fellows ever got caught in. The next time they go duck shooting it would be well for them to charter a balloon to take their game out of the State if it happens that the State they hunt in has a non-export law, as most States have nowadays.—EDITOR.

MR. EMRICK NOT THE WRITER.

The statement on page 288 of October RECREATION about the White Bear hunter violating the game law is surely incorrect. I do not think any of those men at White Bear ever killed a deer in their lives. About Floodwood and Grand Rapids I know nothing, but am positive the first 4 mentioned in the item are not guilty. I enclose a letter I have received from Mr. Emrick. Mr. Fullerton surely knows Mr. Turner. I think he was appointed special warden last year.

Any man who will sign another man's name to a letter is not of much account. I can almost swear that neither Mr. Griggs nor the Kitsons ever killed anything larger than a duck. I met Mr. Emrick about 6 months ago. He was a stranger in town and I have never seen him since. That item is a fake story and not written by Emrick. It is all right to roast the right party, but I'm sure the 4 are not guilty.

S. B., White Bear Lake, Minn.

The letter above referred to is as follows:

I wish you would tell Mr. Turner, Mr. Kitson and brother and Mr. Griggs that the statement in October RECREATION is a lie. Any man who is so low as to sign my name to an article of that kind does not amount to much. I do not know any of those gentlemen whose names are mentioned and who are accused of violating the game law. I was in White Bear only one day, about 6 months ago, and not since that time have I even passed through that town. I am not a game warden and never was.

Chas. H. Emrick, West Superior, Wis.

ONLY HOGS; NOT LEAGUE MEN.

Two more game butchers were caught here last summer with fledgling prairie chickens in their possession. The men, H. L. Hubbard and A. J. Teer, both members of the L. A. S., drove to the shooting ground in a buggy, which they left by the roadside. A farmer passing looked in the vehicle and saw some dead birds. Thereupon he drove the outfit to Dodge City and delivered it to the sheriff. When the hirers of the rig reached town after a walk of 11 miles, they were taken before Judge Labrand and fined $19 each. The farmer received $10 as a reward for their capture. Dr. Milton, of Dodge City, was the prosecutor in this case.

D. A. E., Newton, Kans.

You are mistaken in saying these law breakers are members of the League. They are not. If they had been they would have had more sense than to shoot chickens before the opening of the season or to shoot fledglings at any time. Hubbard and Teer have learned a valuable lesson, and it is hoped they may hereafter be willing to wait until the season opens and until young birds are able to fly at least 100 feet.

If D. A. E. will give me the name and address of the farmer who gave these law breakers the long walk into town I should be glad to send him RECREATION one year free of charge. Furthermore, I should be glad to send the magazine to 100 other farmers on the same terms if they will adopt such summary means of rounding up game hogs as this man did.—EDITOR.

A CHRONIC HOG.

I feel it my duty to write you about a game hog of this place. He is a passenger conductor, running between Chicago and Rock Island on the C. R. I. and P. Railway. His name is H. R. Huntington. About Jan. 20 he went to Letts, Iowa, hunted 2 days and brought home a grain sack full of quails. I understand he did his hunting on the Letts farm; but, at any rate, he got the quails and boasted that he had a right to shoot them, as the owner of the land said he might. I am certain he had no license to shoot in Iowa, and even if he had he had no right to shoot quails in close season. This is not his first offence. He goes to Dakota every year and slaughters all the prairie chickens he can. He was never known to take out a license in any State. He was dropped from the gun club here on account of his greedy nature. He is known among the men here as Old Grab All. It is time he was branded. Am informed the quails in question were disposed of in his usual way, that is, handed around among the officers of the railway for a stand-in. No doubt Huntington will deny this if confronted with it, but anyone here can, and I think will, tell you the nature of the beast. I have nothing against him but what I have stated, but that is enough. I appreciate the good work you are doing and never miss a copy of RECREATION. Huntington claims to be a sportsman. If he is I am not. He has a son who is said to be a close second to the old man.

A. R. P., Blue Island, Ill.

A LOVER OF QUAILS.

Your magazine is the best one for the true sportsman that I have ever read. I am an old prospector and spend most of my time on the desert or in the mountains, consequently am not in close touch with civilization.

The best way to protect the birds is to confine the shot gun to clay pigeons. I kill all the quails, ducks and grouse I want

with my rifle. I take about 6 quails, 2 ducks and 4 grouse for my limit every year when I happen to be where they are, anywhere but near my camp. I never kill any kind of game that comes to my spring to water. I have a flock of 57 quails at my spring now, and the man who would shoot them would have a hard time of it. I brought the old birds from the Colorado river, 70 miles, on burros, and turned them loose in the mountains 4 years ago. Now, there are a few at all the watering places in these mountains. It has been so dry here for the past 3 years that the quails did not mate. This year they seem to have done well. I know where there are thousands of quails. They are not shot at except by the Indians and an occasional prospector. I do not wish any of the game hogs to learn where these birds are.

Let the good work go on. Why not get the gun clubs to limit themselves to 10 birds each in a season for 10 years? The birds would increase by that time so each member could take, say, 15 in a season.

John Packer, Danby, California.

GAME CONFISCATED.

I enclose a clipping taken from the Port Jervis *Gazette*. I am a staunch supporter of game protection and of RECREATION.

John Dougherty, Jr., Rio, N. Y.

The clipping enclosed states that Dr. Joseph Kalbfus,, secretary of the Pennsylvania State Game Commission, accompanied by State Game Warden Joseph Berrier, of Harrisburg, went to Glen Eyre, Pike county, recently to investigate charges that members of the Bloominggrove Park Association have been violating the game laws. A number of English pheasants, several native pheasants and some grouse were discovered in the possession of N. S. Smith, President of the Park Association; R E. Bretnall, of Newark, N. J.; Robert Post and another son of the late Andrew J. Post, of Jersey City; and John Kusser and Benjamin Kusser, of Trenton, N. J.

President Smith assumed the responsibility of the appearance of the men when wanted to appear to answer to the charges preferred, and the secretary of the State Game Commission permitted them to return to their homes. The game was shipped to the Lackawanna hospital, Scranton, in conformity with the State law, which provides that all game seized must be sent to the hospital for the care of wounded soldiers.

Dr. Kalbfus intends to prosecute these parties in the middle district of the United States Court in Pennsylvania, the offenders being liable under the Lacey law.

DO NOT KILL GREYS.

I should like to hear from some good squirrel hunters of the best method to hunt these animals, especially in a country where they are scarce and quite wild. I have been hunting several times lately, and the last time I tried a new plan, which proved all right. I sat down and waited till I saw or heard a squirrel. If I had been walking around I should probably have frightened them and the chances are I should not even have seen one.

Fred C. Haist, Anita, Iowa.

ANSWER.

You should not kill gray squirrels or fox squirrels at any time. They have become so scarce and are so seriously threatened with complete extermination in all farming districts that all sportsmen should henceforth declare them pets instead of game animals and do everything possible to preserve them. They are among the most beautiful and interesting of all the small mammals of this country. The rapid encroachment of civilization on the forests, the rapid growth of public taste for outdoor sports and the thoughtlessness and greed of most shooters have doomed these innocent creatures. It is now the duty of all nature lovers and all sympathetic sportsmen to come to their rescue. —EDITOR.

CAPE COD NOTES.

For a number of years shore birds have been decreasing in number on Cape Cod, but last year they were fairly abundant. Near my camp at Sandwich marshes I saw a flock of about 200 golden plover, a thing not seen there in 10 years or more. Curlew were more plentiful than ever before. During the years of scarcity large flocks of golden plover were observed far out at sea, flying southward. They avoided the cape and Nantucket, probably to dodge the pot hunters who haunt these parts. At Nantucket dough birds used to be killed in large numbers. I have hunted the best grounds on the cape 10 years, yet have never seen a dough bird. They were worth money and were exterminated. There was a large spring flight of beetlehead and yellow legs, but they did not return in equal numbers. I would protect all kinds of shore birds at all times for the next 5 years. If all the States on the Atlantic Coast would protect these birds for 5 years the good old days of flights and fun would surely return. I believe in uniform laws, in all the Coast States at least. I would prohibit Spring shooting and the sale of game and have November and December constitute the open season for grouse, quail and woodcock.

E. E. P., Eastham, Mass.

BELGIANS INCREASING.

The Belgian hares, or common English wild rabbits, burrow in the ground. They dig their own burrows and do not have to use old prairie dog or coyote holes. They come out to feed in the early morning and about sundown; the rest of the time they are underground. These rabbits have increased here enormously of late years, although the occupier of a piece of land, as well as the owner, has the right to shoot them. The coyotes, which possibly might keep rabbits from increasing too quickly, are killed for the bounty. While the rabbit is a novelty they may command fair prices, i. e., 25 cents, dressed; but when they are numerous I don't suppose they will bring more than 5 cents each. Common rabbits, i. e., Belgian hares, retail at 12 cents in England. To get any sport with them ferrets must be used to drive them out. I fully expect the time will come within 15 years when this rabbit will be a pest in California.

R. L. Montague,
Oroville, Cal.

Until that time no one should use ferrets on them. The ferret is the servant of the game hog, and no decent sportsman should ever go into partnership with either.—EDITOR.

L. A. S. STOPS ILLEGAL SHOOTING.

I am happy to say that owing to the untiring, eternal vigilance of sportsmen throughout this country illegal bird shooting has been stopped. Have heard of only one breach of the law. Reliable persons tell me that certain aforetime market hunters did no shooting last summer, because there was no market for birds at Saratoga. The boys have gone at the root of the matter, and by frightening the club houses and dealers, have put a quietus on hunting. This result the State Fish and Game Commission was never able to accomplish, and, in my opinion, never dared try. The credit is due entirely to L. A. S. members and a few other men who are not, but ought to be, members. Among the latter is D. H. Hall, owner of the Oaks, Cossayuna lake, who, although across the river in the next county, is interested in game protection here. He keeps a house patronized by wealthy bass fishermen and bird shooters. He rigidly observes the game laws and requires his patrons to do the same. If we can continue the present condition of things 2 or 3 years, ruffed grouse will rapidly increase in this section.

J. D. H., Schuylerville, N. Y.

GAME INCREASING IN MASSACHUSETTS.

Game is plentiful here. I saw several deer last summer. The law protects them until 1903. Grouse, rabbits and foxes are also plentiful. There should be a bounty of 50 cents to $1 placed on foxes and game would increase rapidly. We have game wardens here, but they are not of the right kind. They allow certain people to hunt or fish in close season. Our trout law is wrong. It prohibits catching any trout under 6 inches, and this year the open season is May 1 to September 1. Instead of the 6 inch clause the season should have been shortened; lots of the short fish caught are so much hurt by the hook that they die if put back in the water.

There are game hogs here as well as in other places. I showed one a copy of RECREATION a short time ago and he happened to turn to a page on which one of his kind was roasted. After reading he said there was nothing in the magazine he cared for. He said, "We have such damned game laws a man can't shoot any game, and if he does he can't sell it without getting pinched."

W. H. Turner,
Monroe, Mass.

ALASKAN BEARS.

In July RECREATION, which reached me at Nome, I find a request for information about the bears of Southeastern Alaska. There are found the common black bear and the large brown bear, commonly called cinnamon bear. I know of no others on the islands. On the mainland near are found what local hunters call silvertip and baldface bears. I believe them varieties of the cinnamon. Over the glaciers near Yakutat roams the blue, or glacier, bear of the Mt. St. Elias region, an animal smaller than the black bear.

I shall spend 2 months collecting curios along the coast between Yukon and Kuskkokwim rivers. Having a phonograph with me I hope to obtain records of the songs and stories of an interesting but fast vanishing people.

L. L. Bales, Alaska Guide,
St. Michales, Alaska.

GAME NOTES.

RECREATION is the best sportsmen's magazine published. I live in Yonkers, 15 miles out of New York City, and although so short a distance from town game is plentiful. I do a good deal of shooting; that is, I shoot whatever I think is worth while and lawful. Within 10 minutes' walk from one of our streets there is a swamp and there, a week ago, we killed 6 woodcock in 2 days. How is that? Does it not speak well for game protection? I am much interested in all sorts of sports and read every word of your valuable magazine. There are also several trout brooks around here. Last summer one of our club members caught a trout weighing 1 pound and 10 ounces. I hope you will continue to succeed in your fight against game hogs.

Samuel G. Cooper, Yonkers, N. Y.

Eleven property owners of the town of Woodstock, who own over 2,000 acres each, have posted notices that any person hunting on their lands will be a trespasser. It has made the crack shots who visit Woodstock to shoot woodcock, quail and grouse look serious.—Kingston (N. Y.) *Daily Leader.*

The crack shots spoken of above are mostly game hogs or pot hunters in the Western part of the town. I have had over 2,000 more acres posted and we are going to protect quails and other birds if it is possible. There is a flock of 15 or 18 quails that makes its headquarters near our house. I am going to bait them and see if I can get them to feed with the chickens. I am sure quails are being shot before the season by rabbit and squirrel hunters. If we could have a uniform season for all game it would be a good thing.

W. S. Mead, Woodstock, N. Y.

LONDON.—Sir Harry Hamilton Johnston, Special Commissioner for the Uganda Protectorate, has returned to London after an absence of 2 years. He brings stories of Uganda rivaling any traveler's tales of Darkest Africa. Sir Harry relates that the country surrounding Moanteigon is totally depopulated, as a result of intertribal wars, and is consequently marvellously stocked with big game as tame as English park deer. Zebras and antelopes can be approached to within 10 yards, and there is no sport in killing them. Elephants and rhinoceroses are also abundant, and, according to Sir Harry, lions in Uganda are too busy eating hartebeeste to notice a passing caravan. The prehistoric giraffe has been discovered in this country by the Commissioner, who proposes to maintain the region referred to as a national park He photographed a race of ape men in the Congo forest differing entirely from Stanley's pigmies, and secured phonograph records of their language and music. Sir Harry says that 12 varieties of rubber trees are found in that country in inexhaustible supply.—Exchange.

One morning last July, Dr. P., of this city, and I went torcaz shooting in the manglares, at the mouth of the Rio Caña, 3 miles from Trinidad. We stationed ourselves on a sandy beach, and in less than an hour shot 12 torcaces as they passed over us to their feeding grounds. It was great sport. Quails are abundant; their call is heard everywhere. In May a flock of bobolinks, or reedbirds, in full summer plumage, appeared in this vicinity. Immediately men and boys with trap cages and bird lime, scattered themselves all over the country. Many birds were caught. I bought 2 after considerable trouble for $2 each. They are handsome birds and sing beautifully.

O. A. Fischer,
Trinidad, Cuba.

Some folks want a cannon when they hunt grizzly, but all they really need is a little grit. My partner and I have about 2,000 sheep on the range. A grizzly came to camp and killed 5 of them. Next morning we started out to get even. My partner carried our only gun, a 32-20 Winchester. Our dogs followed the trail into a gulch, and when we caught up with them they had 2 grizzlies at bay. A single shot from the little gun killed one bear instantly. Then the lever got locked in some way. The other bear had our best dog down. My partner went in with his knife and killed the brute, receiving 3 bad scratches in the mix-up. Bear are much too plentiful here.

Herder, Grant's Pass, Ida.

Game in the upper peninsula is not as plentiful as formerly. In this section it consists chiefly of rabbits, with a few grouse and fewer ducks. I live on the shore of Green bay and see great flights of ducks, but as there is nothing for them to feed on here they do not stop. The deer allowance has been cut down to 3; one of the best moves Michigan's legislature ever made. There was great slaughter of deer last season, mostly around Floodwood and Balsam, 90 miles from here. The shores of Green Bay north of Menominee afford splendid camping grounds, and a prettier spot could not be found

Gilbert Taylor, Menominee, Mich.

The law is enforced in this section of Montana. Deputy warden followed me 100 miles to see that I had a license to hunt. Good work! An elk came to camp a week ago, 6 points, and the meat is now prime. Sheep are in evidence in Montana, but are protected. Missed a dandy herd just across the line, but hope to get one later. Trout here are plentiful and grouse abundant. Deer tracks are numerous; the animals are probably lower down now. All sorts of game passes here, including bear and moose. Charles Marble is proving a good, careful guide.

T. P. Berens, M. D.,
Salesville, Mont.

Quails are exceedingly plentiful. I have counted broods of 20 young birds.

Cotton tails are here in countless numbers and jack rabbits may be found behind every sage bush.

Of larger game, we have coyotes, coons, deer, antelope and a few mountain lions and bear, to say nothing of bobcats, or lynx, that are the bane of the ranchero who has sheep or chickens.

This seems an exceptionally good year for game of all kinds.

W. W. Schmidt,
Las Cruces, N. M.

Around Fort Mitchell we have turkeys, quails, squirrels, rabbits and some deer. Eight or 10 of the latter were killed near here last fall. Turkeys are more numerous than they have been in years. We have also a fair number of woodcock. Have been doing my best to protect game and have

made many enemies by killing hounds on my farm. I had a most enjoyable hunt last fall with 3 friends from the North. We were out 8 days and bagged a number of turkeys.

R. A. Thompson,
Fort Mitchell, Va.

I have been a reader of RECREATION for 3 years and my love for it increases as each issue is received. Owing to the enactment of strict game laws in this State all kinds of game is increasing. The work of the League is needed, however, as we are not without hunters with swinish propensities. But with uniform laws for the protection of game a sufficient amount can be indefinitely preserved. Long live RECREATION, the sportsmen's magazine.

Edw. McGaffick, Salem, O.

Game here wintered better than for a number of years. Elk are increasing; so, also, are sheep. Black tail deer are fairly plentiful, and there are a few white tail in this section. Antelope are gone entirely from these parts. Moose are scarce, but still there are a few. Trout are abundant and gamey. Blue grouse are plentiful. Owing to your efforts game is bound to increase; RECREATION is heard from on all sides.

H. H. Todel, Bozeman, Mont.

You are doing good work and I wish you success. We seem to have more song birds this season than for a long time past. There are fewer English sparrows, for which we are thankful. There is little game near Boston except for those who know the country thoroughly. They can do fairly well. There is a good supply of bass, pickerel and perch to be had by those who are patient and skilful.

A. L. Belcher, Reading, Mass.

I have been a reader of RECREATION nearly 2 years, and can most heartily say it is the best sportsman's periodical I ever read. Before I began to read your magazine I was more or less reckless as to the quantity of game I killed, but it has entirely changed my views. I used to kill 30 or 40 quails in a morning's hunt, but now am satisfied with a dozen a day.

Frank Mims, Mobley, Ga.

In reply to G. C. Edward, Buffalo, Ill., in September RECREATION, as to sowing wild rice: It should not be sown in less than 3 feet of water. Sow in the fall on muddy bottom. Two years ago I sowed a small lake near here with Canada wild rice. It is coming up nicely now. Rice should be soaked 24 hours before planting.

F. S. Wilson,
Elk Rapids, Mich.

This has been one of the best seasons for game birds we have had in years. Prairie chickens are plentiful; coveys run 8 to 20 birds each. Red Head, Teal and Mallard afford splendid shooting. Heron Lake is full of duck feed and large numbers of ducks hatch there. There has been little illegal shooting so far.

R. C. Darr, Lakefield, Minn.

The synopsis of Michigan's game law in September RECREATION contains an error. The open time on grouse, quail and woodcock is October 20 to November 30; not October 1 to November 30, as stated. Quails are abundant here but, as we have no local warden, many birds were shot out of season.

John Grey, Augusta, Mich.

Game is well protected in this State. Deer and moose are plentiful North of this place. A guest at this hotel is going to his camp in the woods, taking a camera instead of a gun, as formerly. RECREATION is having its effect.

John McGahie,
Greenville, Me.

The game laws of Iowa are doing some good, it seems, although they are not enforced as strictly as they should be. Quails and chickens are on the increase, as, also, are all other birds. Fruit tree growers are beginning to see the necessity of protecting birds.

M. A. Stempel,
Macedonia, Iowa.

Hunting season on wild fowl opened here August 15, and prospects are good. We have blue, ruffed and sharp tail grouse here. A few Bob White quails have been introduced and seem to do well. Large game is abundant in the mountains.

D. E. Danby, Rathdrum, Ida.

Keep after the game hogs until they are ashamed. Your position and the manner in which you handle them are admirable.

W. D. Wells, Brooklyn, N. Y.

A yearly subscription to RECREATION is one of the most practical and useful presents you could possibly give a man or a boy who is interested in nature study, fishing, hunting, or amateur photography.

All boys instinctively love the woods. RECREATION teaches them to love and to study the birds and the animals to be found there. If you would have your son, your brother, your husband, or your sweetheart interested in nature let him read RECREATION. It costs only $1 a year, and would make him happy 12 times a year.

FISH AND FISHING.

IN DARKEST NEW ENGLAND.

A subscriber sent me the following clipping:

Mrs. N. F. Prescott reports enjoying a fishing trip in the Granite State. Only 2 or 3 days were spent in camp, and 314 trout were caught by Mr. and Mrs. Geo. Gilman and herself.

I wrote Mrs. Prescott for confirmation of this report, and append her reply:

On my return from the White mountains I found your letter. I was much surprised to hear my fish story had been put in print, but will confess the statement is true. I was sojourning at Campton, N. H. We fished 2 days and camped 2 nights. I do not know the names of the streams we fished. Mrs. N. F. Prescott,
Malden, Mass.

Wonders never cease. Here are 3 people living in New England, which is looked on as a seat of learning, culture and many other things that good people strive for, yet they seem densely ignorant when it comes to a question of taking fish. They took over 100 trout, each, in 2 days. Of course the trout were fingerlings, but that makes the offence all the more serious. It is more than likely that many of the fish were under the legal length, and that these people violated the State law. In fact, it would be almost impossible to take 100 trout from any stream in New England, within a week's fishing, that would measure over 6 inches. It is safe to say that 75 per cent. of the trout these people caught should have been promptly returned to the water and allowed to grow to a reasonable size. Instead of this, it seems that Mr. Gilman and these 2 ladies kept all the fish to swell their count. At least, nothing is said either in the printed report or in Mrs. Prescott's letter, about having returned any of them to the water. I deeply regret that some game warden did not happen along about the time these people were finishing their record to examine the contents of their fish baskets. However, Mr. Gilman and his party have now to face the public and answer to the charge of having caught 3 times as many trout as they should have caught.—EDITOR.

MONTANA LAW DEFECTIVE.

It was the hope of those who deplore the destruction of those noble trout streams, the Yellowstone and the Rocky Fork, that the law to take effect Nov. 1 would put a stop to their defilement by coal dust, and that in the course of years they would be restored to purity. However, a perusal of the law proves this hope to be vain. It is expressly provided in the law that it shall not interfere with coal washing where the refuse is turned into the streams. That being the case the law need not have cumbered the statute books, as it is absolutely farcical and useless. The Yellowstone river varies from a murky color to an inky blackness. The source of defilement is an inky deluge from the coal washings, and within a mile it is thoroughly incorporated. Being a fine dust the coal washings float with the river for probably 200 miles. At Columbus the water is so thick with it that the river is ruined as a trout stream. At Billings the Horr washings make the river perceptibly blacker than Clarke's Fork after it receives the contribution from Red Lodge.

The slack from Red Lodge has not been quite so destructive as the finer dust from Horr, but under the new law it will be worse than before. The coarse slack thrown in at Red Lodge did not float far, but is packed between the boulders like a coarse black powder. That was bad enough to destroy a splendid trout stream, but now the filth will be more thoroughly incorporated with the water. When the question was asked what the coal company will do with their waste, the reply was:

"Oh they will just wash it in. They have put up a fine washing plant."

The Horr nuisance has destroyed 175 miles of the finest trout stream on the continent. The Red Lodge plant has ruined about 80 miles of another stream inferior only in size. The finest trout streams left in Eastern Montana are the Stillwater and the Boulder rivers, both rising in the Big Snowies, and putting into the Yellowstone from the South. There is coal along both of these rivers and their tributaries, and within a few years they too will be destroyed unless the next Legislature shall enact an honest measure for the suppression of the nuisance.

The defilement of these rivers is a serious loss to the States, not only in depriving the citizens of the greatest attractions for their summer outings, but of the inducements for all outside sportsmen to visit Montana; and all this is to save the coal companies a little preliminary expense and inconvenience. The sight of the Yellowstone now is enough to make angels weep. It is a heastly shame.—Independent.

UP TO THE COMMISSIONERS.

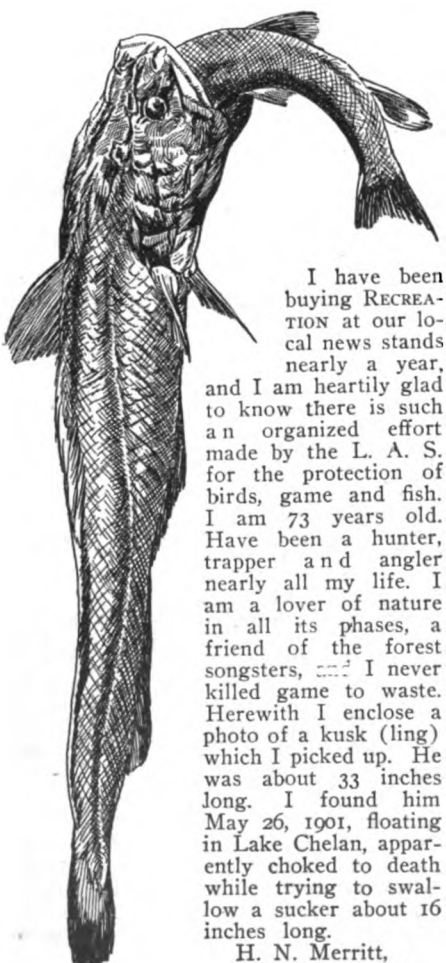
The Dodge Manufacturing Company, of this borough, makers of clothes pins, dump the refuse of their plant, such as chips, shavings, sawdust, etc., into Mill Creek, a trout stocked stream. The Borough Council and the Borough Solicitor have each in turn tried to prevail on the company to cease doing so, but to no purpose, and the company continues to grow bolder and bolder. The refuse sinks, as soon as it becomes water-soaked, to the bottom of the stream, and there lies to a depth of one to 3 feet. Is there not some action we can take in the name of the League of American Sportsmen to prevent this? Thanking you in advance for your advice, I am

Ira L. Murphy,
League Warden for Potter County, Pa.

This is the same old story. The sportsmen of the country are so slow in coming into the League that we are without funds to prosecute any cases outside of the city. Even here, all money used in these cases comes out of my pocket.

Your State has a Fish Commission, and this commission has money at its command with which to enforce the fish laws. These men could stop the manufacturing company from dumping refuse into the stream in 10 days if they saw fit to act, but unfortunately they are politicians, and as a rule ignore appeals made to them by sportsmen, no matter from what part of the State they come. The only redress I can suggest is that a general demand should be made on the Governor for the removal of these men and for filling their places with live, energetic sportsmen It is not likely your fish laws will be enforced to any considerable extent until these men are forced to seek other employment.--EDITOR.

BIT OFF MORE THAN HE COULD SWALLOW.



I have been buying RECREATION at our local news stands nearly a year, and I am heartily glad to know there is such an organized effort made by the L. A. S. for the protection of birds, game and fish. I am 73 years old. Have been a hunter, trapper and angler nearly all my life. I am a lover of nature in all its phases, a friend of the forest songsters, and I never killed game to waste. Herewith I enclose a photo of a kusk (ling) which I picked up. He was about 33 inches long. I found him May 26, 1901, floating in Lake Chelan, apparently choked to death while trying to swallow a sucker about 16 inches long.

H. N. Merritt,
Stehekin, Wash.

PHILADELPHIA AND NEW YORK PLEASE NOTICE.

Last summer the city of Baltimore passed an ordinance forbidding the sale of striped bass under half a pound and white perch under ¼ pound in weight. The commission fish dealers in Baltimore made an arrangement with the local fish warden, by which they were not to be fined if their consignees shipped fish under weight, but the fish were to be returned to their original owner. The dealers then sent notices to that effect to all our buyers and shippers here. This is how it works: Baltimore gets all the large, fine, eatable fish, and New York and Philadelphia, our other 2 principal markets, get all the scrap fish and underweights. Boston, our other fish market, gets nothing but extra choice fish, as it is worse than useless to send scrap fish there. The people will not buy them at any price. Of course, in a small place like Boston, it is easy to educate the people to this standard, but in cities like New York or Philadelphia it is too much work. It seems to me, however, it would be much easier to pass a city ordinance than a State law. If an ordinance similar to that of Baltimore were passed in Philadelphia and New York, and our shippers notified it would be enforced, those cities would then no longer get the worst end of the deal, and the little fish would be turned loose and allowed to reach maturity. This would make it better both for fisherman and consumer. The market is the place to regulate all game and fish laws, and it is almost useless to bother with anything else.

We are having a great fly of fowl now, more than I have seen for several seasons. Some, of course, stop with us; but the majority have gone farther South.

A. S. Doane, Waterlily, N. C.

LAW-BREAKING FARMERS.

One night in October last Deputy Game Warden Wallace Smith, of Logansport, Ind., with 2 assistants, undertook to arrest several farmers who were spearing fish in the river a short distance below that city. The warden found the men in canoes in the middle of the stream and ordered them to come ashore and surrender. The men headed their canoes toward the shore at once and started in, but when they neared the shore one of the fishermen drew a revolver and fired at the warden. The officers returned the fire and several shots were exchanged in rapid succession, but without effect. Meantime the officers turned to get under cover in the woods and were met with a volley of bird shot and bullets from several pals of the fishermen, who were hiding among the trees. A lively skirmish ensued with the bushwhackers, and

the officers ran for their team, jumped into their wagon and started to drive away. The farmers continued the firing and the warden fired at one man at short range and brought him down. At last accounts this man was dying, and it is to be hoped he is well planted by this time. Unfortunately the wardens were unable to identify any of the law-breakers. They saw the faces of those in the canoe by the torch-light, but that was not strong enough to enable the wardens to recognize the men. The farmers have threatened for some time past to make trouble for any warden who might interfere with what they term their rights. On the other hand, Warden Smith is determined to break up this unlawful fishing. It will be interesting to watch the fight and see how it may come out.

A WARDEN'S STRANGE DEFENSE.

Arthur Chase, Perley Stevens and I went fishing September 10. While at the pond Chase shot a duck. He was arrested by Game Warden Arthur Salmon, of Maple, Vt., and fined $10 and costs. After the case was settled I talked with the warden, and, among other things, asked if he had ever arrested anyone for taking undersized trout. He replied that he had not, and said any warden taking up such a case would be kicked out of the county. He added that he would not have bothered Chase if the whole town had not been at him for letting 2 fellows shoot ducks on the same pond the previous week.

D. R. Logan,
East Craftsbury, Vt.

This is a strange line of defense for a game warden to put up to cover an official act, and I should like to know what Warden Arthur Salmon has to say in explanation of his strange argument, not to call it by a harsher name.—EDITOR.

WELCOME TO THE PEN.

In reply to an inquiry as to the truth of an item lately printed in the Seattle (Wash.) Times, I received the following:

Your information is nearly correct. T. Bowes, A. Van Epps and I caught over 2,000 trout in 3½ days. The trout, which were rainbow and cut-throat, were hooked with flies in the Icicle river, on the Eastern slope of the Cascade range. None of the fish were wasted, but salted down and given to friends. A. Van Epps has an acknowledged record of 700 trout in one day, caught in the same river.

W. M. Inglis, Seattle, Wash.

All right, Inglis. Step right into the fish hog pen and take your companions with you. You are welcome to the muckiest corner you can find. Van Epps, who is apparently the big boar of the bunch, may stick his head in the drain while I broadcast his record.—EDITOR.

NIBBLES.

Should like to know if any readers of RECREATION have had trouble with the Bristol steel rod. I bought one before going away last summer. In pulling the line off the reel it snapped the tip. It was bent but little at the time of unreeling. I think it must have been a defective rod.

C. R. B., New York City.

The tip undoubtedly had a flaw in it which was overlooked by the workman when putting the rod together, and by the inspector. If you will report the case to the Horton Mfg. Co., Bristol, Conn., they will doubtless send you a new tip and make no charge for it.—EDITOR.

A subscriber at Victoria, British Columbia, sent me a cut and an item clipped from the Victoria Colonist. The item states that John Longmaid, of Helena, Mont., caught during his visit to Victoria 328 trout. I hold Longmaid's acknowledgment of the truth of the story; he adds that his best day's catch was 29 fish, weighing in all 61 pounds. The cut mentioned shows a white-bearded individual in a chesty pose beside a lot of fish. It is written: "With age cometh wisdom; and with grey hairs discretion." But there are exceptions. A discreet old fish hog nowadays would not send his picture to the papers.—EDITOR.

A friend and I made a trip last summer to Point Fortune, Quebec, 50 miles from Montreal. While there we caught 35 fish, mostly pike and bass. We hooked many more, but threw them back, keeping no pike under 12 inches and no bass under 7. We saw an old Frenchman fishing. He had a box full of fish, and all small ones he caught he threw ashore. He said it was bad luck to put them back in the water, and got angry when we tried to argue with him. We heard a fellow who had been to St. Margaret boast that he had caught 250 trout in 2 days.

G. M. Miller,
Montreal, Can.

That ad. put in RECREATION a few years ago has kept my cottages rented ever since. I have built 2 more, and they are rented, too; so, for goodness' sake, don't tell anybody I have any cottages to rent.

There are some good fish left yet in Lake George, but not every amateur can catch them. Most of the large fish wear a rich and varied collection of decorations in the way of fancy spoons, flies, and all that sort of thing, that they have captured

from men who thought they knew just how the thing was done.

Silas H. Paine, New York City.

Mr. Valentine Raeth, of Milwaukee, has been appointed a State game warden. He is vice-president of the Wisconsin Game Protective Association and has done a great deal for the protection of game and fish. The first time he was out he confiscated a 50 foot net, which was used for unlawful fishing. On his second trip he arrested a man from Waupun for hunting ducks without a license, at Fox Lake. Mr. Raeth will make it hot for game and fish hogs in this State.

Aug. Plambeck,
Milwaukee, Wis.

C. L. Bering landed a 5 foot 7 inch tarpon, weighing 90 pounds, after a lively fight of 55 minutes. With a fierce rush the fish started up the channel with flying leaps, and after running out some 300 feet of line changed his course and came back to deep water. The boat's course was likewise changed, and after an hour's following and leading he was landed, the first of the season.—Houston (Tex.) Daily Herald.

Charles Kirkbride and I have just returned from a 3 days' fishing trip to Lewiston Reservoir. We caught 150 black bass, 137 rock bass and any number of perch. There is plenty of sport there.

A. Wilson, Findley, O.

You are either an egregious liar or a dirty, low down sneak, and if you are telling the truth, your companion is of the same breed.—EDITOR.

One Saturday in August a friend and I went to Chamberlain's Lake, 6 miles West of here, to shoot frogs. We took a frog spear and torch, but the dock leaves stood so high and thickly that it was impossible to use the spear. With a rifle we killed 22 large frogs. Frog shooting requires a great deal of patience and caution, and is really excellent sport.

P. H. Woolman, South Bend, Ind.

In September RECREATION Kit Clark says black bass are more gamy than trout. It is my experience that a half pound trout will fight harder than any bass that swims. The brook trout is the king of fishes in my opinion.

F. T. Wilson.
Elk Rapids, Mich.

Captain Bingham and Major F. L. Hays, who fished at Macklnaw last season, caught in 2 weeks about 200 fish and about 65 of that number were fine bass.—Sunday Review, Decatur, Ill.

I wrote these men, asking if the report was true, but received no reply.

W. E. and Fred Terrill made a record as fishermen a few days ago. They fished one day in Stowe, Vt., and secured 339 trout, which weighed 27 pounds.—*Exchange.*

And thus have the Terrills shown their bristles.—EDITOR.

A black bass was caught in one of the lakes near here, August 6, which weighed between 9 and 10 pounds. It was seen by hundreds of people.

L. A. S.,
Belding, Mich.

A SUGGESTION FOR 1902.

A yearly subscription to RECREATION furnishes one of the most delightful, instructive, entertaining presents you can possibly give a man or boy who is interested in nature, in fishing, shooting, amateur photography; or, who is fond of the woods, the fields, the mountains, the lakes or the rivers.

Many of the presents which people give their friends afford pleasure only for a few days, or weeks. A subscription to RECREATION means solid comfort a whole year. It reminds your friend 12 times during the year of your kindness and generosity. There are many men and women who for 5 years past have annually sent in long lists of names of friends, accompanied with a check, in order that these friends might be made happy a whole year. Would it not be well for you to adopt this plan?

Try it and see how grateful the recipient will be.

The boat you had the Racine Boat Manufacturing Co. send me as a premium is the prettiest one I have ever seen on the Conemaugh river. It is neat and fine in every way and I can not understand how you can give such a valuable premium for 25 subscribers to your magazine, as the boat alone is worth $25. The Racine Boat Company certainly understands its business, and I will not hesitate one minute in recommending it to anyone who intends buying anything in its line. Everybody who sees the boat is delighted with it, and all who have tried it say it is like a duck on the water. They all wonder how you can give such a valuable premium for so few subscribers.

C. E. Welshons.
Pitcairn, Pa.

GUNS AND AMMUNITION.

Anybody can keep on shooting all day, but it takes a gentleman to quit when he gets enough.

THEY DEFEND THE SAVAGE.

New York City.

EDITOR RECREATION:

I do not agree with M. L. Parshall, of Chesaning, Mich., as to what he says about the Savage rifle. I will give you the experience of the last 2 notches on my Savage stock. My guide and I were going up Fish river, Me., in a canoe, and as we came around a bend we saw 2 deer, about 75 yards from the boat. I fired, and the guide remarked that I had missed, as he had seen the splash of the bullet in the water on the opposite side of the deer. The deer turned and ran into the woods. We paddled up to where the deer had entered the woods and got out. At the place where the deer was standing when shot was a lot of the contents of his entrails scattered on the ground. Neither of us knew at that time whether my bullet or the deer had dropped the contents. About 10 feet farther we found blood and commenced to trail. At 40 feet we found a part, if not the entire, entrails hanging on a bush 2 or 3 feet from the ground, and at 75 yards we found the deer, lying down to die. The deer was about 9 months or a year old. The spots were just going off. The bullet, a soft nose, went through the belly without touching a bone, making a hole that let the entrails out, and in which I could have put my wrist. The bullet went clear through, striking the water, which the guide had seen.

Second notch: I shot a doe. The ball struck in her hind quarters about 3 or 4 inches from the top of her back. She never moved from her tracks. On inspection, I found the ball had struck the back bone, shot from the side, and instead of the bullet "flying into bits," as Mr. Parshall says, the bone flew into bits, and the bullet kept going until it went through and out on the other side.

The flesh of both of the deer was lacerated 4 and 5 inches around the bullet hole, like jelly. The last deer was old and tough. In fact, we were unable to eat the meat on account of its being so tough. Of course I did not know that or I should not have shot her. In camp one of the guides wanted to know what I had done to the meat. The guide who was with me was not a believer in the small bore until he saw these 2 deer shot. When we came out with the first deer, knowing then that we had struck it, we examined the contents scattered on the ground, and satisfied ourselves that the bullet had knocked them out. There was an experience in both flesh and bone.

Terry Smith.

Ironwood, Mich.

Editor RECREATION:

RECREATION for October contains an article entitled "A Fault of the Savage Rifle," written by M. L. Parshall, of Chesaning, Mich. My experience with the Savage, as well as with other rifles, has been considerable, and I have met with the best of results with the Savage. Judging from what Mr. Parshall says, I suggest that perhaps the cartridge used was at fault, rather than the gun. He admits the velocity and trajectory of the Savage are all that can be desired, but adds that its penetrating power will not even compare with that of a 38-40.

Standing at a distance of 110 yards, I have shot both soft nose and wire wound bullets through a 6-inch, dry maple plank, with the Savage. Like Mr. Parshall, I have seen a deer shot squarely in the shoulder; but instead of the bullet flattening against the bone, it came out on the opposite side, leaving a hole which measured fully 7 inches across. In another instance, the bullet entered the back of the head and came out between the eyes, bringing most of the front of the head with it. I have also seen a deer shot in the back, just over the hips. The bullet followed the back bone a sufficient distance to splinter 7 or 8 vertebræ; drove some of the pieces of bone through the hide, and came out on the top of the shoulder. Soft nose bullets were used in the instances given.

Experience has taught me that where there is sufficient velocity, penetration will depend on the weight of the bullet. If the bullet flies to pieces on coming in contact with a hard substance, the fault is with the carriage rather than with the rifle. I have used both Winchester and U. M. C. cartridges in the Savage with good results. The wire wound bullets manufactured at the National Projectile Works are good, and leave the gun clean; but should they rub one against another when being carried, the silk on the wire frays out, dust accumulates in it, and the bullet becomes too large for the chamber. I have found this so in using them with both the Savage and the Winchester.

In reloading Savage cartridges, I have obtained excellent results with the Laflin & Rand Rifle Smokeless, and think it the best smokeless powder made.

I have a Savage, a 30-30 Winchester and a Winchester shot gun; but the Savage is

my pet. This is entirely unsolicited, but I like to see honor fall where honor is due. W. W. Prentice.

I notice Mr. M. L. Parshall, Chesaning, Mich., speaks of the fault of the Savage rifle, because the bullets fly in pieces at short range. I am guessing he used U M. C. ammunition, as that same fault was found by both my companions in Colorado, and neither one used a Savage; while I used a Savage and Winchester ammunition, and had but one bullet break, that being the closest standing shot I had while there. The bullet struck at the point of shoulder, smashing the bone and tearing the jacket so the lead left it. One small piece of lead lodged on the skin near the root of the tail, the balance of the bullet passing on and out of the deer. I saved the piece, as it was something of a curiosity, being lead that stayed in the same from a Savage. One of my companions said his 30-30 would scarcely ever shoot through a deer within 100 yards if it struck a bone on entering. I found the jacket, minus about ¼, midway between entering and exit of bullet. I know the Savage people recommend the U. M. C. ammunition, but the Winchester ammunition does well enough for me.

Now, I want to learn. Is there any semi-smokeless powder that one can use in strong loads in brass shot gun shells, and that will not swell and spoil the shells? I have a gun bored expressly for brass, so I can not use paper shells. I always used American wood powder. When they stopped the manufacture of powder I bought what I thought would last me while I lived, and may be it will, but it is getting low. I don't wish to throw my Lefever away and don't want it rebored to a 10 gauge; so if there are any readers of the magazine that have had satisfaction, I wish they would give me the benefit of their experience.

Stubb, Orwell, Ohio.

In October RECREATION M. S. Parshall writes about a fancied fault of the Savage rifle. Now, I am the proud possessor of a Savage, and have killed moose, elk, deer and bear with it. Of the last, black, brown, grizzly and polar; and I have yet to discover a fault in the rifle.

In the same letter Mr. Parshall wants to know how far to hold ahead of a deer running at 100 yards. That depends on how fast the deer runs. The bullet of the 303 Savage travels about 2,000 feet a second, and the time it takes to go 100 yards is about 1-6 of a second. If the deer travels 20 feet a second, for example, in 1-6 of a second it would only travel 1-6 of 20 feet, which is 3 1-3 feet; the distance it would be necessary to hold ahead.

J. Wills, Seattle, Wash.

DEFENDS PETERS' GOODS.

PLAINWELL, MICH

EDITOR RECREATION:

With your permission, I should like to say a few words, unsolicited, through RECREATION, in defense of the goods manufactured by the Peters Cartridge Company. For several months past your subscribers have read a number of articles, published by you, which, if true, would convince them that this company is placing in the market ammunition of little or no value, but it happens that many of us have been using at least a portion of these goods, and from experience know that the writers have made many mis-statements; not intentionally, of course, but through a lack of that good judgment and sound discretion which it is necessary for a person to have before criticising the acts and doings of another. It is impossible to remember the names of the correspondents, but one stated that the .22 short smokeless cartridges, when fired, did not carry up as they should. Another found fault because so many of them missed fire. I am not sure whether he referred to the smokeless or the semi-smokeless. In your November number John C. Cracknell, of Oakland, Cal., says emphatically that the Peters cartridge, .22 long, both smokeless and semi-smokeless, is a failure. He is just as emphatic in saying that the Remington gun of a certain grade has the fewest defects of any gun made in America, and that for closeness of pattern and penetration it is inimitable. Now, we all know that the Remington people make a fine gun, and perhaps as good as is made; but when Mr. Cracknell makes the positive statement that it has the fewest defects of any American gun, and that for closeness of pattern and penetration it can not be equaled, he is making an assertion which your readers will at once see is not correct. It is merely a mistake of judgment on his part, and not intentional. He may be like a great many others who own a gun and think it is the best in the world. This is because they are wedded to their guns, and do not use any reason in making their assertions. We all know that there are other firms in the United States, whose names it is not necessary to mention, manufacturing shot guns which are as good as the Remington. Otherwise, why do so many professional and amateur shooters use them in preference to the Remington? Mr. Cracknell also states that the new U. M. C. .22 caliber smokeless cartridge is the only accurate .22 caliber smokeless on the market. There is another positive statement which your readers will also probably doubt to some extent. That this cartridge is accurate, no one will dispute, as the U. M. C. Company manufactures ammunition as nearly

perfect as can be made. What I take exception to is the claim that it is the only accurate smokeless .22 on the market, as well as the further statements made by him against the Peters ammunition. If Mr. Cracknell wished to do justice to the Peters Company when firing 25 consecutive shots at a quarter inch center, why didn't he place his gun in a vise instead of taking a rest? It may be that when shooting from such a position with a cartridge in which he had, apparently, no confidence, he could not do so well as he did with the U. M. C. cartridge, and his gun may have wavered just before firing, as it certainly does with a great many shooters.

During the season, in a new single shot Winchester, I have fired about 1,300 rounds of the Peters .22 semi-smokeless short, and 300 rounds of the .22 long, not the long rifle. I never had one cartridge miss fire out of the bunch. As nearly as I could tell, from my experience both in the field and the gallery, all of each kind were of equal strength, and placed the bullet directly in the spot pointed at. I do not mean by this that I hit the mark every time, but when I did not it was neither the fault of the gun nor the cartridge, but of the man behind the gun. Of course, I do not shoot from a rest, and were I not able to shoot offhand I should not shoot in any other manner. So with Mr. Cracknell and the other critics; the fault has always been in the man and not in the gun or the ammunition. From experience we know that many of us are too prone to complain and find fault when the trouble is all with ourselves. For instance, a few weeks ago a young lady in my office, with my associate, went hunting. She used a Remington single barrel shot gun, with U. M. C. smokeless shells, loaded with Dupont smokeless powder. When she returned I found that 15 of the shells had missed fire. There was a splendid chance, through RECREATION, to roast the manufacturer of the shells; but I had used several thousand of them in another gun and never found one which refused to explode, so we submitted the matter to our former gun dealer, who declared the heads of the shells were sunken. A straight edge soon disproved his theory, so of course there was another opportunity of abusing the Remington people for making a poor gun; but I insisted on the lock of the gun being taken apart, and the next day we were informed that the old oil in the lock had gummed and caused all the trouble. Such, no doubt, would be the similar experience of all the kickers if they would only use their heads a little more, and their pens a little less. We find these difficulties arising not only with the gun and its ammunition, but with rods and reels, and in fact with all our undertakings. If Mr. Cracknell wishes us to believe what he says about the Peters ammunition let him be more careful about the other statements made in his letter.

Mr. Truitt, one of our gun dealers here, tells me he has used, this season, 1,500 Peters semi-smokeless .22 short, and that they have given him entire satisfaction, as well as their 12-gauge shot gun ammunition.

I like your magazine very much, and would not be without it. In fact, a few years ago I discontinued the American Field and subscribed for RECREATION.

If Mr. Harry Cranston will wipe out his rifle, after shooting it, with 5 or 6 oiled rags, or until the gun is perfectly clean, I think it will not rust. Then if he wishes he can wipe it dry, or leave it oiled. I like olive oil the best. Ed. J. Anderson.

THE MAUSER AND THE MAN.

Quite a discussion has run through the gun and ammunition department of RECREATION relative to the value of the captured Mausers recently sold by the Government. One correspondent claimed they were only old junk, valuable merely as war souvenirs.

My experience is the opposite of that statement. For the benefit of several inquirers in our magazine, I beg to unfold my tale.

Last fall, on starting on a Western hunting trip, I bought 2 Spanish Mauser military carbines, 19 inch barrels, one a German model, 7 mm. box magazine, the other the Argentine model, 7.65 mm. Lee magazine. These I took with me. My reason for choosing the carbines was that they could be packed in my trunk. I also bought 100 rounds each of German cartridges for the 7 mm. and 100 U. M. C.'s for the 7.65 mm. The former were all defective, being split in the neck.

Before going into the woods I tried the guns on targets, and found them accurate and powerful. Notwithstanding the defectiveness of the German cartridges, they proved much the better ammunition. The U. M. C.'s invariably dropped the primers in the discharge, thus clogging the action. Besides, they were not nearly so powerful, nor were they so accurate.

I used the weapons for shooting deer, and found them in every way satisfactory. When the season closed I shipped them home.

Deciding at St. Louis to go farther South, I bought another Argentine model, with perfect German ammunition. Because of their great range, in trying these I nearly always removed the bullet from the shell, poured out ½ the powder, and then replaced the bullet. This was to guard against accidents which might attend their long flight.

In Wilton, Ark., I tried this carbine, and at 50 yards, with a full charge, it drove the bullet through a 16 inch green gum tree. The hole at the exit was scarcely larger or more ragged than at the entrance, showing that the force of the discharge was not nearly spent. Considering the toughness of the tree, the shot was remarkable, and proved that the weapon had not been rendered unserviceable.

I have had an Infantry Mauser converted into a sporting rifle by altering the stock, and it is a beauty. The dealer who dressed it up for me showed it to a New York sportsman, who was so pleased with it that he bought 2 of them and had them altered to hunting models. I have not heard as to his experience with them.

I have another in military stock, which I shall not change; shall try it and report results.

E. E. Stokes, New York City.

U. M. C. VS. PETERS.

Judging from the gun and ammunition department, you have a great many readers who use the .22 calibre rifle. I send you target, 10 shots, made with 2 different makes of cartridges, distance 40 yards. I don't send it because it is an extra good one, but merely to show those readers of RECREATION who are interested in .22 calibre rifles the difference between the cartridges. It was made with a Stevens' Ideal, using .22 long rifle cartridges. The upper 5 shots were made with the U. M. C. and the lower 5 with Peters cartridges. The sights were Lyman's combination in each case. In March RECREATION Mr. Shiffer says of the Peters' cartridges: "They surpass all others in range, penetration and accuracy." Why does a cartridge that "surpasses all others in range, penetration and accuracy" fall 2 inches below another at 40 yards, 12 inches at 100 yards and 24 to 36 inches at 150 yards? Perhaps Mr. Shiffer can explain it. It is evident he never tested the 2 together or he would not have made the statement he did. He carries the idea, too, that the .22 long is more accurate than the .22 long rifle. That is another case in which his statement is incorrect. The .22 long can not be compared with the .22 long rifle, as regards accuracy. Why not give actual results after a thorough trial and not so much guess work?

A. M. Hare,
Bay City, Ore.

MARLIN CORRESPONDENCE.

I know nothing about the shooting qualities of the Marlin rifle. In fact, I always liked the Marlin rifle; but the Marlin people! Hear me! Two years ago a friend of mine was in the Maine woods, 2 days away from the nearest railroad and one day away from the nearest post office. To get to the post office was a day's trip with a canoe, 22 miles. He broke one of the springs in the lock of his Marlin. That was no fault of the rifle. He wrote to the Marlin people to send him another spring, and when he came out of the woods he would send the money, not knowing the amount. A polite letter came back, saying that on receipt of 30 cents they would send the spring, as they did not wish to make any little accounts. To send the 30 cents would have required a man, a canoe and 2 days, down and back, and then a man, a canoe and another 2 days, down and back, to get the spring, unless the man waited for it several days. There is no necessity to give names. The Marlin people can find my friend's letter on file if they keep files, or their letter, if they keep copies.

Terry Smith, New York City.

A box of guns from Wyeth Company, St. Joe, Mo., received by a dealer here, contains a pamphlet entitled "A Court Document," by Marlin. Have the last shot, old man, and if he can't stop you, don't you stop. The last few copies of RECREATION contain just what Marlin deserves, and I for one would not use anything he could make after he has treated you so unfairly.

F. R. Fouch, Parma, Idaho.

I suppose you have seen the book the Marlin Arms Co. is sending to people round here, entitled "The Real and Original Game Hog Drawn by Himself." I think it will do the Marlin folks a lot of harm. I had decided to get a rifle of them, but should not think of doing so now. I hope you will prosper in your good work.

John R. Gillam, Cowansville, Quebec.

I had a Marlin repeating shot gun, but it was no good. It would choke up and would not work. It would not extract if the shells happened to be damp.

John A. Cooper, Deleware, Ohio.

16-GAUGE HIGHEST TYPE.

Noticing the inquiry of Mr. Jones, of Slate Hill, Pa., in RECREATION some time ago, relative to the power of a 16 gauge gun, I beg to state my experience with that gun. For 25 years I used a 12 gauge gun, commencing with the old lift action Parker and following with W. & C. Scott, Greener, Schaefer and Lefever, all in 12 gauge. With the advent of nitro powders I saw no use for the 7½ and 8 pound guns I had been using, and I gradually reduced the weight till I used a 6¼ pound gun.

It then occurred to me that a 16 gauge gun would be a deadly arm, so I ordered one, 3 years ago, with 2 sets of barrels, one pair 28 inch, cylinder bored, for birds, and one pair 28 inch, full choke, for heavier shooting. The cylinder pair, stocked, weigh 5 pounds and 6 ounces; the full choke pair, stocked, 6 pounds and one ounce. With this pair I have killed, the past 3 winters, some 36 turkeys in the South, and many ducks. These barrels were bored for a 2⅞ inch shell, and I used 3 drams of powder to one ounce of No. 5 shot. Many times at 40 and 45 yards I have cut down wild turkeys on a cross shot, badly breaking them up; and once at 60 yards I killed a fine old gobbler, a most surprising shot. The cylinder pair are bored for a 2 9-16 shell, and with 2¾ drams of powder are deadly for grouse, woodcock, quails and snipe. This little gun, to my mind, represents the highest ideal of a sporting arm.

E. O. Damon, Northampton, Mass.

BEST MODEL FOR LYMAN SIGHTS.

In January RECREATION A. S. Mosse asks for some information regarding Lyman sights on the '95 model, 30-40 Winchester. I once used one, but lately changed to a 303, same model. I find the sight more handy than the one on the old models; it does not catch in brush, as the older style did when raised. There is one objection I have found to the new model, and that is this: When carrying the rifle over the shoulder, the lever is sometimes worked loose by rubbing, thus changing the elevation of the sight. If one is careful that can be easily prevented. Besides that I can see no other cause of complaint.

In the same issue of the magazine was a question *re* shooting large game with shot guns. When in India, I used to shoot pigs in the coffee plantations. I found the best charge up to 30 yards was 9 moulded shot 3 in a layer, in a 12 bore shell, or 3 layers of 4 each in a 10 bore, with 3 drachms of powder for 12 bore, 4½ for 10 bore. After putting the shot in I used to pour over them hot candle grease. When this is discharged from the gun, it goes like a bullet for 35 or 40 yards, unless it strikes something, in which case it makes a terrible wound, like that of a 50-100 express bullet, but with less penetration.

J. F. Campbell, Peutichin, B. C.

BANKS ON THE 25-20.

I read in September RECREATION an inquiry as to the accuracy of the 25-20 cartridge, compared with the W. C. F. 32, and the 22 long. I have found the 25-20 as accurate as any rifle cartridge I ever used, and its destructiveness is remarkable for its size.

I have shot jack rabbits at 100 to 175 yards with the 25-20, with the most satisfactory results. The bullet usually goes through the body at those distances. Have shot at targets 200 to 300 yards, with the 25-20 and have always found it extremely accurate.

I doubt whether the 25-20 would prove satisfactory as a squirrel or quail gun, owing to its strong penetration; but do not know of any better for rabbits. Do not think the 22 short can be beaten for a squirrel gun. I have read RECREATION several years and consider it the best periodical in its line.

S. E. A., Sioux City, Ia.

TO KEEP SMALL CALIBRES CLEAN.

I have noticed several complaints from readers about being unable to clean and keep clean their 30-30's, 30-40's and other small calibre smokeless powder rifles. They will have no trouble if they will try my plan. Use a bristle brush cleaner, dipped in water and rubbed on a cake of sapolio until a little adheres. Run through barrel several times, after which rinse, brush and run through several times more. Run a few wet rags through to thoroughly remove sapolio, then a few dry ones, and the gun will be perfectly cleaned. An oiled rag run through after such a cleaning will keep the barrel in perfect condition. The sapolio will not injure the bore. When guns are put away, either before or after cleaning, they will not rust nor pit if breech block is left open, providing, of course, they are not wet inside.

George McLean, Denver, Colo.

NATURAL HISTORY.

When a bird or a wild animal is killed, that's the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

DO DOES LEAD?

I noticed Mr. Sperry's letter in August RECREATION. I have had much experience with big game during the last few years, working as collector for several museums and studying animals in their natural haunts for the purpose of perfecting myself in taxidermy. My observations may, therefore, be of some value to Mr. Sperry.

With elk it is a fact that an old cow leads the bunch. The bulls always stay in the rear. I have often seen them with their noses out and horns thrown back along their sides, trying to follow the cows through the quakers, or small pines. With deer it is about the same. I spent 2 years in Routt county, Colo., without doubt the greatest deer country in the world. I learned that does, fawns and young bucks stay together, and old bucks go in bunches by themselves. Antelope work a great deal like sheep and goats and seem to have no regular leader while feeding. When they go to water, sometimes a buck leads, sometimes a doe; but in either case it is always an old animal. As for any big game protecting its young, I have never seen it attempted. All they think of is themselves and their own safety. When they are frightened it is always the swiftest one that leads, be it doe or buck.

Bert R. Beymer,
Omar, Colo.

After living 21 years in the mountains of Montana and Idaho I am of opinion that neither deer nor elk have recognized leaders. The frightened dash of a bunch of either of those animals is usually led by a doe, but only because the bucks have more curiosity and linger an instant to locate the cause of the alarm. I have often watched bands coming out of the mountains. When the animal in advance stopped a moment to feed, another would take its place, and so on until all the individuals in the band had been, for a time, leaders. Horses are the only animals which have regular leaders. Even they will not always follow. In that case the leading horse gets behind the others and drives them where he wants them. I have seen does protect their fawns, but never but once saw a buck show fight for any cause. He was a whitetail and was badly wounded.

There is no game on the mountains that will fight if it has a chance to run. This region is full of bear, mountain lions and panthers but the only brute in it with grit enough to attack a man is the mosquito. Neither boards, netting, canvas nor smudge smoke will stop him; unless you break his back with a club he is bound to get you.

V. Emerick, Boise, Ida.

A doe usually leads a band of elk. Twenty years ago elk were exceedingly abundant here. I was then carrying Uncle Sam's mail on horseback through the mountains and often saw several bands in a day. It was not uncommon to see an old cow leading a bunch. After running time, which begins here with the full moon in August and continues through September, the old bulls leave the band and do not return until spring. Spike bucks and occasionally forked horns remain with the bands through the winter. We have no deer save blacktails, and they do not band.

X., Hill Lake Harbor, Ore.

In reply to Lyman B. Sperry, would say I spent the summer of 1897 in Oregon, and had a good chance to study the habits of deer. I have often watched for deer at the licks and noticed that the does always led. The bucks came leisurely in the rear. When danger threatened the buck would give warning and allow the doe to escape first. These habits were first brought to my notice by William Asher, an old hunter and guide of West Fork, Ore., who has spent his life in the wilds of that country.

F. W. Weisman, Swanton, Vt.

My experience gained during a 22 years' residence in the Big Horn Basin convinces me that does always lead. Bucks are always in the rear or near the rear of the band. This applies to elk, deer and antelope. Among the half-wild range cattle either a cow or a steer leads, usually the former; a bull never.

Otto Franc, Meeteetsee, Wyo.

RECENT ARRIVALS AT THE NEW YORK ZOO PARK.

Mammals.—2 Canadian Beaver, gift of Hugh J. Chisholm; 1 Florida Deer, gift of Mrs. Arthur Duane; 1 Bonneted Macaque, from Ceylon, gift of Mrs. F. Cordes; 1 Capuchin Monkey, Bolivia, gift of Mrs. George H. Bridgman; 1 Capuchin Monkey, gift of Master Willie Samuels; 1 Pinche, gift of Miss Miriam S. Coe; 1 Fox Squirrel, gift of Mrs. G. A. Geppert; 1 Family of 7 Opossums, gift of H. C. Wells; 1 Red Fox, gift of Ferdinand Kaegebehn; 1 Squirrel Monkey and Coati Mundi, gift of F. N. Koziell; 1 Three-Toed Sloth and 1 Two-Toed Sloth, from British Guiana, in exchange; 2 Orang-Outans, from Borneo, purchased; 1

Equine Deer, in exchange, from the Philadelphia Zoological Gardens; 2 Guenon Monkeys, 2 Squirrel Marmosets, 1 Columbian Black-Tailed Deer, 6 Kangaroo Rats, 3 Minks, 2 European Brown Bears, purchased.

Birds.—2 Jungle Fowl, gift of Homer Davenport; 2 Black-winged Peacocks, gift of Homer Davenport; 2 German Nightingales, gift of Louis Fleischman; 1 Blue-fronted Parrot, gift of P. Kelly; 3 Quail or Bobwhite, gift of Mrs. Helen Mütz; 4 Yellow-crowned Night Herons, and 4 Black-crowned Night Herons, gift of C. D. Brown; Ring-necked and Peacock Pheasants, received in exchange; 2 Black and 3 Turkey Vultures, purchased; 12 Brown Pelicans, 7 Indian Peacocks, 2 Javan Peacocks, 2 Sandhill Cranes, 4 American Flamingoes, 12 Magpies and 2 Great Blue Herons, purchased.

Reptiles.—1 Cuban Boa, gift of General Daniel E. Sickles, and another of same species, gift of J. A. Ruiloba; collection of 17 rare lizards from the cañons of Northern Arizona, gift of Barnum Brown; collection of 12 Florida snakes, gift of Thomas Barbour; 2 African Rock Pythons, 2 Black-tailed Pythons, 2 Bull Snakes, 7 Texas Coachwhip Snakes, 28 Horned Toads, 6 Rainbow Snakes and 24 snakes of various species from South Carolina, purchased; 409 serpents and lizards, representing 24 species collected in Hampton County, South Carolina, by R. L. Ditmars and Charles Snyder. The following specimens have been born or hatched from eggs in the Reptile House: 33 Chicken Snakes, 47 Black Snakes, 11 Ribbon Snakes, 15 King Snakes, 29 Florida Garter Snakes, 23 Cotton Mouth Moccasins, 11 Copperhead Snakes and 6 Banded Rattlesnakes.

BREEDING PHEASANTS AND QUAILS.

Santa Cruz, Cal.

Editor RECREATION:

I raised, last season, from 3 hen pheasants, about 60 young birds, all of which are doing well. I hatch the eggs under bantams. The chicks are put in a pen 2x4x7 feet, the sides and top covered with one-inch mesh wire. In one end of the pen I place a box about 2 feet wide and the width of the pen. The front of the box is closed with slats, just far enough apart to permit the chicks to run through. Build the pen where the sun can reach it as much as possible. Feed the chicks finely chopped hard boiled eggs, chick weed, lettuce and maggots. The last can be had without much trouble by placing a piece of meat where it will be fly blown and then burying it in a tub, covered with moist bran. The chicks should be fed after the first 2 weeks and have plenty of clear water. Pheasants will breed satisfactorily in confinement, if left to hatch and raise their own young.

Quails, also, can be raised in confinement, but will do better in the field if not disturbed. That, at any rate, is the case with Eastern Bob White when bred in the West. I am exchanging California valley quails for Bob Whites, which I turn out where they will be afforded good protection.

Like yourself, I am spending every dollar I can raise for the protection of game and fish. I am organizing county fish and game protection associations, and they are doing much good work. I want to see every county compelled to appoint a game warden. Persons who have no regard for the law should be made to obey it. I want to see a county license law in force, and, in addition, a State license as well. Those, coupled with the laws we now have in this State, would solve the problem of game protection. A person who can afford to go from one county to another to hunt can afford to pay to the county of which he is not a resident and in which he wishes to shoot, a small license fee. The sale of all game should be prohibited, and the bag should be limited.

I wish RECREATION and the League of American Sportsmen all kinds of success, for in them is our only hope for efficient game protection. Walter R. Welch.

A FRIENDLY GROUSE.

How is this for a companion piece for your nighthawk, or whip-poor-will, episode? Yesterday morning my neighbor, Mr. C. A. Briggs, saw a large bird flutter against my porch screens and fall to the ground. Walking across the lawn, he found a full grown ruffed grouse, which he captured and kept until noon. As I was going in the country in the afternoon, I invited Mr. Briggs to join me, and we took the bird with us and released it in an ideal resort for its kind, in the native brush and timber, unfrequented by hunters, some 5 or 6 miles from this city. When released it flew gently to the ground, alighted but a few feet from the buggy and showed so little fear and such assurance that I doubted its ability to take care of itself; but it soon began to strut and move through the brush with that familiar p-r-r-t, p-r-r-t, apparently saying, "You are all right and I knew it all the time." To make sure that we were not abandoning a wounded bird to become the easy prey of its many natural enemies, Mr. Briggs alighted and put the bird up, when it quickly and satisfactorily demonstrated its ability to handle itself perfectly, although it showed no apparent haste to part company, and only flew a short distance before settling down. We could not wholly exclude the idea that

the bird would remember us kindly if we were to meet again. The bird was docile until we came to natural timber, when he became interested at once and plainly indicated a desire to be released. While driving through open country or past artificial groves he remained perfectly quiet, but each patch or grove of native wood interested him keenly. The incident seems peculiar from the fact that ruffed grouse have never been numerous here, and are now practically extinct. Mr. Briggs is a sportsman, and an active member of the L. A. S., as the many applications you have received bearing his name as witness will testify; so the grouse fell in good hands.

Henry A. Morgan, Albert Lea, Minn.

PURE CHINESE.

In August RECREATION I notice a review by Mr. Darlington of my article on Chinese pheasants. I hope his request that we hear from others will be granted, but should like to add a few facts to my first article in direct reply to him. Mr. Geo. Horne, of England, who has imported and raised many pheasants, says: "The original home of the pure English pheasant is the Thasis river, Trans-Caucasia. In the pure bird the whole coloring is inclined to a dark, rich red, the sides being extremely dark. English pheasants in England to-day are totally different from what they were when first introduced and hardly any 2 are alike. The Chinese pheasant, by inbreeding, is rapidly losing all traces of the original bird we had from the Thasis river."

Hon. O. N. Denny, of Portland, Oregon, lived in China and Corea 14 years. He raised Chinese pheasants there and introduced them into this country. He objects to their being called Mongolian, as it is not the correct name.

In a letter, Mrs. Denny says: "These birds are the pure ring-necked China pheasant, absolutely pure, no matter what anyone may say to the contrary." They are common all over China, Corea and Mongolia. She adds that she never heard of one being called Mongolian in the East. Mr. Davenport, of New Jersey, who has the largest collection of pheasants in the world, says there is a Mongolian pheasant, but it has never been seen in this country. It is twice as large as the Chinese.

I have been raising the Chinese birds 6 years, and they breed true to type and markings. If Mr. Darlington breeds birds of various sizes and markings, some with collar perfect, others with but little white on neck, from the same matings, it proves beyond any doubt that there is English blood in the stock. That mixture is always easier to raise than the pure blood.

H. R. Foster, Ashby, Mass.

COONS DO CALL.

I note what Mr. Wakeman says about coons making a noise. Until 3 or 4 years ago I always doubted that coons could call to one another. My wife and I were camped on one of the tributaries of the Saginaw river. I heard during the night this so-called coon or screech owl call directly across the stream from our tent. I got up to investigate and found a young coon in a trap across the river.

The animal made a noise much like the screech owl's call. The coon would rise on tip toes, hump up his back and make this sound, repeating it every 2 or 3 minutes. The call that coon gave at least 50 times while I watched him was a hoo-hoo-hoo in rapid succession and on a key near to the moaning dove's note. A man might hear this call all his life and not know it was a coon's, but I happened to be fortunate in seeing what I have related.

R. P. Alden, Saginaw, Mich.

We had 5 half-grown coons in our show window. As soon as the lights were turned out at night and everything was quiet, they would make a noise similar to that made by a screech owl or a tree frog. I can not say whether the sound was made by the male or the females. It was of sufficient volume to be heard 300 or 400 yards under favorable conditions. I have had observing hunters tell me that during mating season coons will call and answer from one wood to another at sundown, and later. I don't think anyone will question the ability of a coon to make a noise when he is nailed by a dog. These coons were captured in a rather peculiar manner. A turtle net, which had been baited with fish, was pulled out of the river and left over night on the bank. The next morning it had a mother coon and five youngsters in it.

Claude Rapp, Troy, O.

WOLF AND FOX TRAPPING.

No one can tell Mr. Carey the best way for him to trap wolves and foxes, because a method successful in one man's hands may prove an utter failure in another's. Mr. Carey must experiment for himself, always remembering that when intelligence is pitted against brute cunning the odds are with the latter.

For wolf trapping use a No. 4 trap with 8 inch spread of jaws, a 6 or 8 foot chain with a 3 pronged drag hook, and a clog of about 40 pounds weight. For foxes use a No. 2 trap with 4⅞ inch spread, a light chain and grab, and no drag. Many trappers use the common single spring rat trap for foxes.

Dip your traps in fresh blood of any kind; dip, also, a clean pair of gloves. Let all dry, and thereafter do not touch traps or bait save with the gloves. Choose your

ground carefully. Dig holes for the chain and toggle and a shallow one for the trap, putting the sod and earth you remove on a blanket. Cover chain and trap with earth, and carry surplus dirt to a distance. Before covering the trap put moss or wool beneath the pan so dirt can not get under to hinder the working. Then cover with ¼ inch of earth. Smooth the dirt with a brush or a rabbit skin. Then, if you have done your work well, you will find it hard to tell just where the trap is buried. Bait for wolves with scraps of fresh meat on which rabbit hair has been sprinkled. For foxes use scraps of fried beef rolled in honey; or use mice, fish, poultry or rabbits. If you have been clever you will miss your trap the second or third morning, but you can easily follow it by the drag or grab hook trail.

If Mr. Carey has no luck with this method I shall be glad to give him others. Have often wished RECREATION would devote more space to trapping lore.

Old Trapper, Gardner, Mass.

COLLECTORS SHOULD BE RESTRAINED.

I fully appreciate the efforts you are making for the preservation of our game, fish, and song birds. Enclosed is an advertisement from *The Oologist*, an ornithological magazine, showing plainly where our song birds are going. Can nothing be done with such fellows as Howard? Have they a special license to collect birds' eggs to sell?

C. Bloom, Kalamazoo, Mich.

The ad. follows:

I am collecting this season in Southern Arizona in the Huachuca mountains. I am securing many rare and desirable sets, including red-faced, Virginia, Audubon's, black-throated gray, Lucy's, olive, Grace's, and Sonora yellow warblers; Coues', vermillion, sulphur-bellied, olivaceous and buff-breasted fly-catchers; Stephen's whip-poor-will; rivoli, broadtailed, cactus and black-chinned hummers; Arizona and long-crested jays; Scott's oriole; hepatic and Cooper's tanager; rock and canon wrens; canon towhee, painted redstart, Arizona junco, pigmy nuthatch, chestnut-backed bluebird, white-necked ravens and many other varieties too numerous to mention here. Nests with all sets not larger than jays.

O. W. Howard, Ft. Huachuca, Ariz.

ANSWER.

No doubt some of these collectors who advertise birds' eggs and skins for sale have special licenses from their respective State authorities for making such collections, but even so, privileges thus conferred are usually abused. No man should ever be allowed to collect such specimens for sale. Schools, colleges and museums that really need eggs and skins for study and for educational purposes can afford to send out their own collectors, and this commercial traffic in such specimens should be prohibited. Several States have laws prohibiting the buying, selling or having in possession for sale of any song or insectivorous bird or part thereof, and all other States should pass such laws in the near future.—EDITOR.

COLORATION OF GOLD FISH.

I have a friend who has kept gold fish several years. She has been fortunate in rearing them and they seem perfectly healthy. Among the number have been several with black markings, and an especially handsome one of a beautiful copper color with considerable black on back, sides and head; but after a few months the black disappeared and the fish became the ordinary gold color. They appear as healthy as the others. Please tell me the cause of the peculiar coloration and of its disappearance.

M. D. Blanchard,
Los Angeles, Cal.

ANSWER.

The coloration of domestic gold fish is a purely artificial one, which has been acquired through many generations of cultivation. The original color of the species was a greenish or coppery olive with tendencies toward golden and blackish. It is no uncommon thing in a brood of gold fish to find all sorts of colors from the original to the ordinary red. These colors, however, like those of other domestic animals, are more or less unstable, the tendency being to revert either to the original color or to take on blotches of black or white. These blotches later frequently turn to some other color, often red or greenish. The phenomenon is a purely natural one and does not in any way indicate a diseased condition of the fish. If it is desired to perpetuate the black or bronze colors, the individuals showing those characteristics should be used as breeders. Even if the colors disappear in the individuals selected, they are likely to reappear and remain more permanently in their descendants.—EDITOR.

REFERRED TO MY READERS.

Twelve years ago or about the time Oklahoma was opened up, hawks appeared here about the middle of September, coming from the South and going North. They remained only a day or 2. For 6 years following they were not seen. Since then they come every fall, always going North. Persons living 30 to 50 miles West of here say the birds pass over there as well. I think I can distinguish 4 varieties —red-breasted, band tail, small slate colored and black. I should like to know where they go, and why.

Elmer Dukelow, Hutchinson, Kan.

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Sidney Conant, Sec.-Treas., Keene.

NEW JERSEY DIVISION.

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VIRGINIA DIVISION.

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WEST VIRGINIA DIVISION.

J. M. Lashley, Chief Warden, Davis.

WISCONSIN DIVISION.

James T. Drought, Chief Warden, Milwaukee; Dr. A. Gropper, Sec.-Treas., Milwaukee.

WYOMING DIVISION.

Dr. Frank Dunham, Chief Warden, Lander H. E. Wadsworth, Sec.-Treas., Lander.

Applications for membership and orders for badges should be addressed to Arthur F. Rice, Secretary, 23 W. 24th St., New York.

LOCAL WARDENS IN NEW YORK.

County.	Name of Warden.	Address.
New York,	Conrad L. Meyer,	46 W. Broadway.
Livingston	M. De La Vergne,	Lakeville.
"	K. S. Chamberlain,	Mt. Morris.
Nassau,	Willett Smith,	Freeport, L. I.
Albany,	C. D. Johnson,	Newtonville.
Allegany,	J. D. Holden,	Belmont.
Broome,	John Sullivan,	Sanitaria Springs
"	R. R. Mathewson,	Binghamton.
Cayuga,	H. M. Haskell,	Weedsport.
Cortland,	J. A. Wood,	Cortland,
Chemung,	Fred. Uhle,	Hendy Creek,
"	M. A. Baker,	Elmira.
"	E. P. Dorr,	103 D. S. Morgan Building, Buffalo.
Erie,		
"	Marvin H. Butler,	Morilla.
Essex,	W. H. Broughton,	Moriah.
Franklin,	Jas. Eccles,	St. Regis Falls.
	W. J. Martin,	McColloms.
Montgomery,	Charles W. Scharf,	Canajoharie.
Oneida,	J. M. Scoville,	Clinton.
Orange,	Wilson Crans,	Middletown.
	J. Hampton Kidd,	Newburgh.
Richmond,	Lewis Morris.	Port Richmond.
St. Lawrence,	Dr. B. W. Severance,	Gouverneur.
"	A. N. Clark,	Sevey.
Schenectady,	J. W. Furnside,	Schenectady.
Suffolk,	F. J. Fellows,	Central Islip, L. I.
	P. F. Tabor,	Orient, L. I.
Tioga,	Geo. Wood,	Owego.
Washington,	C. L. Allen,	Sandy Hill.
"	A. S. Temple,	Whitehall,
"	J. E. Barber,	Dresden.
Westchester,	George Poth,	Pleasantville.
"	Chas. Seacor,	57 Pelham Road, New Rochelle.
Essex,	H. E. Braman,	Keene Valley.
Dutchess, Columbia,	A. B. Miller,	Jackson's Corners,
Orange,	Thomas Harris,	Port Jervis.
Onondaga,	James Lush	Memphis.
Yates,	B. L. Wren,	Penn Yan.
"	Seymour Poineer,	Branch Port.
Dutchess,	Chas. H. DeLong,	Pawling.
"	Jacob Tompkins,	Billings.
Queens,	Gerard Van Nostrand,	Flushing, L. I.
"	W. S. Mygrant,	46 Elton Street, Brooklyn.
"	P. A. Geepel,	473 Grand Ave., Astoria, L. I.
Ulster,	M. A. DeVall,	The Corners.
"	Wm. S. Mead,	Woodstock.
Jefferson,	C. E. Van Order,	Watertown.
Herkimer,	D. F. Sperry,	Old Forge.
Rensselaer,	Benj. McNary,	Bath.
Oswego,	J. E. Manning,	154 West Utica St.
Putnam,	H. L. Brady,	Mahopac Falls.
Schuyler,	G. C. Fordham,	Watkins.

LOCAL WARDENS IN OHIO.

Stark,	A. Dangeleisen,	Massillon.
Franklin,	Brook L. Terry,	208 Woodward Av., Columbus.
Cuyahoga,	A. W. Hitch,	161 Osborn St., Cleveland.
Clark,	Fred C. Ross,	169 W. Main St., Springfield.
Erie,	David Sutton,	418 Jackson St Sandusky.
Fulton,	L. C. Berry,	Swanton.
Allen,	S. W. Knisely,	Lima.
Hamilton,	W. C. Rippey	4465 Eastern Ave., Cincinnati.
Knox,	Grant Phillips,	Mt. Vernon.
Lorain,	T. J. Bates,	Elyria.
Ottawa,	Frank B. Shirley,	Lakeside.
Muskingum,	Frank D. Abell,	Zanesville.
Scioto,	J. F. Kelley,	Portsmouth.
Highland,	James G. Lyle,	Hillsboro.

LOCAL WARDENS IN CONNECTICUT.

Fairfield,	George B. Bliss.	2 Park Row, Stamford, Ct.
	Harvey C. Went,	11 Park St., Bridgeport, Ct.
"	Samuel Waklee,	Box 373, Stratford.
Litchfield.	Dr. H. L. Ross,	P. O. Box 100, Canaan, Ct.
Middlesex,	Sandford Brainerd,	Ivoryton.
New Haven,	Wilbur E. Beach,	318 Chapel Street, New Haven, Ct.
"	D. J. Ryan,	188 Elizabeth St., Derby.

LOCAL WARDENS IN MASSACHUSETTS.

Norfolk,	Orlando McKenzie,	Norfolk.
"	J. J. Blick,	Wrentham.
"	S. W. Fuller,	East Milton.
Suffolk,	Capt. W. J. Stone,	4 Tremont Row, Boston.

LOCAL WARDENS IN NEW JERSEY.

Mercer,	Jos. Ashmore,	124 Taylor St., Trenton
Mercer.	Edw. Vanderbilt,	Dentzville, Trenton.
"	Roland Mitchell,	739 Centre St., Trenton.
Morris,	Joseph Pellet,	Pompton Plains.
"	Chas. W. Blake,	Dover.
"	Francis E. Cook,	Butler.
"	Calone Orr,	Hibernia.
Somerset,	G. E. Morris,	Somerville.
Sussex,	Isaac D. Williams,	Branchville.
Union,	A. H. Miller.	Cranford.
	C. M. Hawkins,	Roselle.
Warren,	Jacob Young, Reuben Warner,	Phillipsburg.
Monmouth.	Dory-Hunt,	Wanague.

LOCAL WARDENS IN PENNSYLVANIA.

Jefferson,	John Noll,	Sykesville.
Perry,	Samuel Sundy,	Lebo.
Warren.	F. P. Sweet,	Goodwill Hill.
Juniata,	Clifford Singer,	Oakland Mills.
Venango,	G. D. Benedict	Pleasantville.
Potter	Ira Murphy,	Coudersport
"	Wiley Barrows,	Austin.
"	Chas. Barrows,	Austin.
Crawford,		
"	Jasper Tillotson,	Tillotson.
"	Geo. T. Meyers,	Titusville.
"	J. B. Lamb,	Buel.
Cambria,	W. H. Lambert,	720 Coleman Ave., Johnstown.
Butler,	F. J. Forquer,	Murrinsville.
Allegheny,	S. H. Allen,	Natrona.
Beaver,	N. H. Covert,	Beaver Falls.
"	W. R. Keefer,	"
McKean,	C. A. Duke,	Duke Center.
"	L. P. Fessenden,	Ganere.
Lack,	Wm. Weir,	Moosic.
Carbon,	Asa D. Hontz,	East Mauch Chunk
Cumberland,	J. C. Gill,	Mechanicsburg.
Wyoming,	Cyrus Walter,	Tunkhannock.
Tioga,	E. B. Beaumont, Jr.,	Lawrenceville.
"	G. H. Simmons,	Westfield.
Lycoming,	Jas. J. Brennan,	Oval.
"	B. D. Kurtz,	Cammal.
Montgomery,	Walter Lusson,	Ardmore
"	L. C. Parsons.	Ardmore.
Bradford,	Geo. B. Loop,	Sayre.
Clarion,	Isaac Keener,	New Bethlehem.
Cameron,	Harry Hemphill,	Emporium.

LOCAL WARDENS IN MICHIGAN.

Kalkaska,	W. H. Dunham,	Kalkaska.
Kalamazoo,	C. E. Miller,	Augusta.
Berrien,	W. A. Palmer,	Buchanan.
Cass.	Thomas Dewey.	Dowagiac.

LOCAL WARDENS IN VIRGINIA.

Mecklenburg,	J. H. Ogburn,	South Hill.
King William	N. H. Montague,	Palls.
Smythe,	J. M. Hughes,	Chatham Hill.
King & Queen,	R. D. Bates,	Newtown.
Louisa,	J. P. Harris,	Applegrove.
Henrico,	W. J. Lynham,	412 W. Marshall Richmond.
East Rockingham,	E. J. Carickhoff,	Harrisonburg.

LOCAL WARDENS IN WYOMING.

Fremont,	Nelson Yarnall,	Dubois.
Uinta,	S. N. Leek, F. L. Peterson,	Jackson.
Carbon,	Kirk Dyer,	Medicine Bow.
Big Horn,	E. E. Van Dyke,	Clark.

LOCAL WARDENS IN TENNESSEE.

Sumner,	W. G. Harris,	Gallatin
Stewart,	John H. Lory,	Bear Spring.
Robertson,	C. C. Bell,	Springfield.
Montgomery,	P. W. Humphrey,	Clarksville.

LOCAL WARDENS IN NEBRASKA.

County.	Name of Warden.	Address.
Hall,	E. C. Statler,	Grand Island

LOCAL WARDENS IN NEW HAMPSHIRE.

Cheshire,	S. C. Ellis,	Keene.
Sullivan,	G. A. Blake,	Lempster.
"	J. W. Davidson,	Charlestown.

LOCAL WARDENS IN VERMONT.

Rutland,	Wm. J. Liddle,.	Box 281, Fair Haven

LOCAL WARDENS IN ILLINOIS.

Rock Island,	D. M. Slottard,	12th ave and 17th St.. Moline.

LOCAL WARDENS IN OKLAHOMA.

Kiowa and Comanche Nation,	A. C. Cooper.	Ft. Sill.

LOCAL WARDENS IN IOWA.

Clinton,	D. L. Pascol,	Grand Mound.
Pattawattamie,	Dr. C. Engel,	Crescent.

LOCAL WARDENS IN WASHINGTON.

Okanogan,	James West,	Methow.

LOCAL CHAPTERS.

Albert Lea, Minn.,	H. A. Morgan,	Rear Warden
Angelica, N. Y.,	C. A. Lathrop,	"
Austin, Pa.,	W. S. Warner,	"
Boston, Mass.,	Capt. W. I. Stone,	"
Buffalo, N. Y.,	H. C. Gardiner,	"
Cammal, Pa.,	B. A. Ovenshire,	"
Carbon Co., Pa.,	E. F. Frey,	"
Charlestown, N. H.,	W. M. Bushwell,	"
Coudersport, Pa.,	I. L. Murphy,	"
Cresco, Iowa.,	J. L. Platt,	"
Davis, W. Va.,	J. Heltzen,	"
Dowagiac, Mich.,	W. F. Hoyt,	"
Evansville, Ind.,	F. M. Gilbert,	"
Fontanet, Ind.,	W. H. Perry,	"
Ft. Wayne, Ind.,	W. L. Waltemarth	"
Hopkinsville, Ky.,	Hunter Wood,	"
Indianapolis, Ind.,	Joseph E. Bell,	"
Jerome, Ariz.,	Dr. L. A. Hawkins,	"
Johnsonburg, Pa.,	W. J. Stebbins,	"
Kalispell, Mont.,	John Eakright,	"
Keene, N. H.,	F. P. Beedle,	"
Lake Co., Ind.,	Dr. R. C. Mackey,	"
Loganpsort, Ind.,	E. B. McConnell,	"
Mechanicsburg, Pa.,	Dr. J. H. Swartz.	"
New Albany, Ind.,	Dr. J. F. Weathers,	"
New Bethlehem, Pa.,	Isaac Keener,	"
Penn Yan, N. Y.,	Dr. H. R. Phillips,	"
Reynoldsville, Pa.,	C. F. Hoffman,	"
Rochester, N. Y.,	C. H. McChesney	"
St Paul, Minn.,	O. T. Denny,	"
Schenectady, N. Y.,	J. W. Furnside,	"
Seattle, Wash.,	M. Kelly,	"
Syracuse, N. Y.,	C. C Truesdell,	"
Terre Haute, Ind.,	C. F. Thiede,	"
The Dalles, Ore.,	C. B. Cushing,	"
Winona, Minn.,	C. M. Morse,	"

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The following firms have agreed to give members of the L. A. S. a discount of 2 per cent. to 10 per cent. on all goods bought of them. In ordering please give L. A. S. number:

Syracuse Arms Co., Syracuse, N. Y. Guns.
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A. F. Rice, 155 Pennington avenue, Passaic, N. J.
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A. A. Anderson, 6 E. 38th street, New York City.
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D. C. Beard, 204 Amity street, Flushing, L. I.
C. H. Ferry, 1720 Old Colony Bldg., Chicago, Ill.
Hon. Levi P. Morton, 681 5th avenue, New York City.
H. Williams, P. B. 156, Butte, Mont.
D. B. Fearing, Newport, R. I.
E. H. Dickinson, Moosehead Lake, Me.
Lorenzo Blackstone, Norwich, Conn.
A. L. Prescott, 90 W. Broadway, New York City.
G. S. Edgell, 192 Broadway, New York City.
W. B. Mershon, Saginaw, Mich.
Hon. H. W. Carey, East Lake, Mich.
George Carnegie, Fernandino, Fla.
W. L. Underwood, 52 Fulton street, Boston, Mass.
C. E. Butler, Jerome, Ariz.
Mansfield Ferry, 183 Lincoln Park, Boulevard, Chicago, Ill.
Austin Corbin, 192 Broadway, New York City.
J. S. Brown, 241 South 5th street, Reading, Pa.

There are thousands of men in the United States who should be life members. Why don't they join? Will some one please take a club and wake them up?

SALE OF GAME CAN BE STOPPED.

Mr. C. C. Truesdell, Rear Warden of the Syracuse, N. Y., Chapter of the League, has sent me the following letter:

Mr. Chas. Truesdell, Syracuse, N. Y.:

I regret to disagree with the League in regard to bill relating to the sale of grouse. I am opposed to such a law. So is our club, and I have already made our objections known to the members of our Legislature and our Senator. If you get the bill passed you will make a grand mistake, because it is so unjust that you can never enforce it. It would be a dead letter on the books and a dead weight on other laws that are not unjust. You ask taxpayers to pay their cash to make the laws, and pay game protectors to execute the game; yet you would prohibit the use of the game, save to a small percentage, viz: those only who shoot. Why ask the people to produce game birds at such a cost and prohibit their use?

Z. L. Parker.

This is an old man. He wants to eat all the game himself, so his children and grandchildren and their issue will not have indigestion. C. C. Truesdell.

To Mr. Parker I replied as follows:

Mr. C. C. Truesdell has sent me your letter. I beg to give you in reply some information which you may not have obtained from other sources, and which will no doubt interest you. You say it will be impossible to enforce a law prohibiting the

sale of woodcock, grouse and quails. There are 24 States in the Union which already have laws on their statute books prohibiting the sale of certain species of game at all times of the year. The quail is one of the birds included in all of these laws. In some cases the prohibition also includes ruffed grouse, prairie chickens, wild turkeys, etc. Such laws are, of course, always aimed to protect the species of game which, through thoughtlessness or greed of sportsmen, or game dealers, or game hogs, have become so scarce as to require rigid and vigorous measures for their protection.

These prohibitory laws are being enforced in all the States referred to. This League alone has convicted 330 people for violations of such laws within the past year. Ohio has a law prohibiting the sale of quails at all times, and about 250 people were convicted in that State last year for violations of this provision in the law. If such laws can be enforced in other States, why not in New York?

If we succeed in getting the bill through the Legislature at Albany, you may rest assured this League will see that it is rigidly enforced throughout the State. That is what this League was made for, and it has certainly shown itself competent thus far to carry out its intentions.

We may not succeed in getting the bill through this year, but if not we will go at it again next year as soon as the Legislature assembles, and we shall keep at it until we pass the bill. We shall not stop at prohibiting the sale of quails and woodcock, but we shall have laws prohibiting the sale of all kinds of game, at all times, in all the States of the Union, within 5 years. There are thousands of people demanding the passage of such laws in States where they do not already exist, and there will be hundreds of thousands demanding them within the next few years. Game is not a legitimate article of commerce. It belongs to the people of the State in their sovereign capacity, and it is a fundamental principle of law, as old as the hills, that a man may take from the public property enough for his own use, but he may not sell any of it. The Supreme Court of the United States has said that a man who kills game and reduces it to possession acquires even then only a qualified interest in it. He may use it as food or may use the skins of game animals for clothing, or for any other domestic purposes, but he may not sell.

The Government allows the settler to go on Government land and get all the timber he needs to build his house, his barns, his fences, his bridges, and even supply his family with fuel, but let him cut one tree and sell it. and he then commits a penitentiary offence. G. O. Shields.

THE NEW HAMPSHIRE DIVISION.

Chief Warden Brooks has lately sent out a circular letter in which he says:

As we are entering on another year, this seems an opportune time to review the year just closed. Comparing the present condition of this division with that of a year ago, the result is gratifying, although not so much so as I wish. A year ago this division was organized with 25 members, and E. W. Wild was appointed Chief Warden. In May, Mr. Wild, for lack of time to devote to the work, resigned and C. M. Brooks, of Keene, was appointed to fill the vacancy. At that time there were 44 members in the State. In the next 6 months the division doubled its membership. Having passed the 50 mark we were entitled to a Secretary-Treasurer, and Sidney Conant, of Keene, was appointed to that position. Two local chapters were organized, one in Cheshire county, F. P. Beedle, Rear Warden, and one in Sullivan County, W. M. Buswell, Rear Warden. Several local game wardens were also appointed. The division has distributed the League printed matter throughout the State. It has also printed circular letters and the State fish and game laws, etc., for distribution to members and sportsmen.

A word to the members: Do not think your duty ended when you cast your vote for the division officers. What can these officers do without the support of the members? Comparatively little. You will probably say, "How can I support them?" There are several ways. First, by renewing your membership immediately on its expiration. Second, by inducing 2 or 3 of your friends to join the League. Do you realize what it would mean to our cause if every member secured 2 new members this next year? It would more than treble our influence; and every member owes it not only to his division but to the National League to get to work. Third, keep your eyes open for violations of the fish and game laws, report all cases to the League officers and assist these officers to prosecute the offenders. If every member will take it on himself to do these 3 things, the next 12 months will see the League an important factor in fish and game matters throughout the State.

To the readers of RECREATION and sportsmen who are not members, let me say a few words. Join the L. A. S. at once. We are working for your interests, and in return you should give us your support by joining our ranks. Send your name to the division officers and we will gladly explain our work to you and listen to your suggestions.

To those who wish to join or renew and do not know how to do it: Send your name, your address and your dollar to the Chief Warden. We will see

that your money is sent to the proper authority and your name enrolled on the books. Give us your moral and financial support and we will work for the best interests of the fish and game.

Clarence M. Brooks,
Chief Warden New Hampshire Division.

DO THE SAME IN YOUR TOWN.

Two more State divisions of the League have recently been organized. These are North Dakota and Oklahoma. This brings the total number up to 40, and we hope to organize the remaining 11 States during the coming winter. Will not the members of the League in Alabama, Alaska, Arkansas, Delaware, Georgia, Indian Territory, Louisiana, Maryland, Mississippi, North Carolina and South Carolina kindly stir themselves? The experience of sportsmen in the 40 States already organized shows what is possible. It would be just as easy to enroll 25 members in each of the States not yet organized as it was to get them in those that have completed their quota. It only remains for some earnest, energetic man in any good sized town to turn out, collect the dollars and send them in with the names. It is entirely safe to say that 25 applications for League membership can be had in any town of 2,000 inhabitants anywhere in the United States if the right man will take the work in hand and push it one day. For instance, there are 119 members in Albert Lea, Minn., 31 in Angelica, N. Y., 43 in Austin, Pa., 31 in Cresco, Iowa, 40 in Davis, W. Va., 31 in Dowagiac, Mich., 69 in Evansville, Ind., 79 in Jerome, Ariz., 26 in Kalispell, Mont., 55 in The Dalles, Oreg., 58 in Coudersport, Pa., 25 in Carbon County, Pa., 56 in Carmal, Pa., 29 in Cheshire County, N. H., 58 in Ft. Wayne, Ind., 29 in Glenns Ferry, Idaho, 36 in Hopkinsville, Ky., 50 in Bowling Green, Ky., 25 in Fontanel, Ind., 44 in Johnsonburg, Pa., 64 in Logansport, Ind., 50 in Lake County, Ind., 30 in Minturn, Colo., 28 in Mechanicsburg, Pa., 25 in New Bethlehem, Pa., 64 in New Albany, Ind., 27 in Penn Yan, N. Y., 27 in Owego, N. Y., 25 in Reynoldsville, Pa., 56 in Seattle, Wash., 34 in Terre Haute, Ind., 57 in Winona, Minn., 44 in Wichita, Kan., 27 in Victor, Mont., 30 in Ralston, Pa., 52 in Lewiston, Mont., 50 in Missoula, Mont., 44 in Carson, Nev., 43 in Lead, S. D., 31 in Providence, R. I., 29 in Steubenville, Ohio, 27 in Ludington, Mich., 29 in Oklahoma City, Okla., and 27 in Cheyenne, Wyo. Then why should there not be 25 in any other live town in the country?

AN EXCELLENT PLAN.

The protection of our game birds from the hog and the pot hunter is a question that ought to be uppermost in the minds of all League wardens and members. Plans for the coming campaign ought to begin to be worked out. Where a member or warden is alone in the field it is almost impossible to get sufficient evidence to convict. I have thought of a scheme, and offer it for consideration. I have interested some farmers and obtained their consent to post their land, and have ordered made at my own expense 100 signs forbidding hunting or trespassing. Each will be signed by the owner of the land on which it will be placed. The land owners have promised to put them up according to my directions and will inform me of all trespassing. In return I have promised that I will prosecute any and all persons caught on the grounds with a gun or in any way violating the law. We know that "fools rush in where angels fear to tread," but after one or 2 fools are caught, others will take warning. In this way we can give the birds a place to stay where they will not be molested. So far I have posted nearly 1,000 acres of the best quail ground in this section, and the first person caught on it will get the full legal dose.

Wm. S. Mead,
L. A. S. Warden Ulster Co., N. Y.

This is an excellent plan and one that has been in operation for several years past in many localities. The League also furnishes cloth posters, in any numbers desired, to any person who will agree to put them up. In these posters the League offers a reward of $10 for any person convicted of violation of the fish or game law of any State, and we pay such rewards nearly every week. Persons interested in the preservation of game and fish, no matter where, are invited to send for such number of these League posters as they can place to advantage.—EDITOR.

PASTE IT IN YOUR HAT.

The fourth annual meeting of the L. A. S. will be held in Indianapolis, Ind., on the second Wednesday of February, 1902. Eligible for membership therein:

All general officers of the League.

All chief wardens, vice wardens and secretary-treasurers of divisions.

All delegates chosen by the several divisions, and the chairmen of all standing committees.

Members who may determine to attend are requested to send notice to the Secretary at once, in order that a hall of suitable size may be engaged and proper arrangements made for hotel and other accommodations. We hope to have at least 30 States represented in this meeting. We especially invite all local wardens to be present. It will greatly benefit the cause to have the members from various States

and from various portions of each State meet, become acquainted, exchange views and ideas, and thus fit themselves for better and more effective work at home.

LEAGUE NOTES.

While I can not give you an accurate report of the work done under our new game and fish laws, which went into force March 8 and May 11, 1901, respectively, I can tell you approximately what has been done. Over $4,000 have been received from non-resident licenses. About 135 convictions have been made and about 100 of the number have contributed $20 each to the game and fish protective fund. About 150 seines and nets and about 35 fish spears have been seized and destroyed. This is a reasonably fair showing, but by the last of the year it will be more than double this.

Hon. E. L. Littleton, Indianapolis, Ind.

I am surprised to hear that my membership in the L. A. S. has not been kept up for the past 2 years. I supposed that matter had been attended to. I presume, however, I must have overlooked it. I therefore enclose the amount of my last 2 years' dues, in addition to $25, which I understand entitles me to a life membership in the League. This will prevent the possibility of any further neglect to pay dues, and I am glad to belong to the League, as I thoroughly approve the work you are doing.

Austin Corbin, New York.

November 7th I received a letter from Mr. R. L. Brashear, of Bowling Green, Ky., enclosing a check for $53, in payment for an equal number of League memberships. The names of the applicants were enclosed with the check.

About once a week some man somewhere wakes up and decides that he will go out and get the boys to join the League. He goes at it and almost invariably gets every sportsman he approaches on the subject. Strange that the other fellows don't wake up.

George Bauman, of Marblehead Junction, Ohio, and Alec Nielsen, of Venice, Ohio, were arrested on the charge of catching undersized catfish in violation of law. The arrests were made by Game Warden David Sutton, Frank Shirley and G. H. Whitford. Mr. Sutton is a member and a local warden of the L. A. S. The accused men pleaded guilty and were fined $25 and costs each. This is another example of the good work done by the wardens of the League.

Matters are coming our way all over the State. Lately a man was fined $68.50 for having a wild duck in his possession out of season. His attorney argued that a dead duck wasn't a wild duck. The next day a man was fined $36 for having illegal nets in his possession. In the same week a man was drowned in the adjoining county while seining. Providence seems on our side. Hon. Frank L. Littleton, Indianapolis, Ind.

IT WILL LAST A YEAR.

A yearly subscription to RECREATION furnishes one of the most delightful, instructive, entertaining presents you can possibly give a man or boy who is interested in nature, in fishing, shooting, amateur photography; or, who is fond of the woods, the fields, the mountains, the lakes or the rivers.

Many of the presents which people give their friends afford pleasure only for a few days, or weeks. A subscription to RECREATION means solid comfort a whole year. It reminds your friend 12 times during the year of your kindness and generosity. There are many men and women who for 5 years past have annually sent in long lists of names of friends, accompanied with a check in order that these friends might be made happy a whole year. Would it not be well for you to adopt this plan?

Try it and see how grateful the recipient will be.

A major and surgeon of the army stationed in the Philippines writes us that recently, when the chief nurse of a small base hospital in Southern Luzon was sent away, there was a great struggle among the 5 nurses remaining for the vacant position, which meant a distinct increase in pay. Each one of the 5 came to the office of the surgeon in charge, to show cause why she should be appointed chief nurse, and why none of the others were entitled to that distinction. The young Solomon in charge was "up against it"; but gave the following decision: "Each one of you must write on a piece of paper her exact age, and send it sealed to me. The oldest woman will be made chief nurse." There is still a vacancy as chief nurse in a small base hospital in Southern Luzon.—Argonaut.

RECREATION'S FAIRY.

F. E. TARBOX.

There once was a man,
So I've heard say,
Who shot everything
That came his way.
There was also a fairy,
So light and airy,
Who lived in a bog
Just like a frog;
She changed that man,
With gun in hand,
Into a hog,
With a set of bristles
Like last year's thistles.

FORESTRY.

EDITED BY DR. B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes thirty years to grow a tree and thirty minutes to cut it down and destroy it.

NATURE SANCTUARIES.

J. W. LLOYD.

I should like to interest all naturalists, game preservers, natural history societies, village improvement clubs, and the like, in the work of establishing Nature Sanctuaries; that is, places where, as far as may be, all animal, vegetable and mineral nature would be left free, wild and unchanged.

Now that the League of American Sportsmen, the Audubon Societies and others are working for bird and game protection as never before; since forestry is a profession and the preservation of forests is attracting national attention; now that books on nature are multiplying and growing so popular as to be found in almost every home; and that Yellowstone Park is actually such a sanctuary, the time seems ripe for this movement.

What I have to propose is this: That every township in the United States buy and set apart a piece of land, however small, and dedicate it to Nature; a place where no wild animal shall ever be molested, tree cut, flower picked, or stone removed.

If you have at all the soul of a naturalist, think of being able to reach, within an hour's walk, a place where the wild birds and beasts are so unafraid, yet natural, that they fearlessly go on with all the usual processes of their lives as indifferently as if you were a tree, or a grazing ox. Think of a place where the tree lies where it falls; where no texts or odious advertisements are painted on the rocks, no initials carved on the trees, no flowers pulled, roots and all, no "improvements" made! What a place for the lover of wild nature, of study for the student, of rest for the weary! Think what such an untouched spot would look like at the end of a century!

In almost every township in the United States there is some bit of wild waste land, practically valueless for agriculture, that could be bought for a small sum and turned into a sanctuary. The more barren, hilly, rocky, rugged or swampy, the better. Often the more utterly valueless such a place is, agriculturally or commercially, the more picturesque it is to the artistic eye, the more fitting in every way for the uses of a nature park. It would be an advantage, however, if in the spot chosen there should be a great variety of surface, soil and condition, swamp and hill, stream and pond, wet and dry, clay and sand, slope and level, evergreen and deciduous forest.

In most of the forest States little would be necessary except to enclose such an area and leave it to nature. In the prairie States it would, no doubt, sometimes be necessary practically to create the sanctuary by planting trees and introducing the animals. The need of a place of the kind is tenfold greater in the prairie than in the forest lands, for many children in the open regions have never even seen a wild grove. To cultivate the soil thoroughly at first, and make one thick, broadcast sowing of mixed tree seeds and nuts, would probably be all the work ever necessary, even there, except fencing and buying a few animals.

How vastly superior such a place would be to a formal park, with fancy pagodas, concrete walks, arranged shrubbery and signs of "Keep off the grass"! How superior to a menagerie of prisoned brutes, or a museum of stuffed victims, to an actual student of nature! "Wild Animals I Have Known" might then be the boast of every schoolboy.

The sanctuary should belong to the community, although, of course, there is nothing to prevent rich men from having private ones on their own estates. The land could either be presented to the township by benevolent citizens, or bought by the community, collectively, and held as public property. The more everybody is interested in its possession and maintenance, the more its ends are likely to be subserved.

While the ideal of such a place is that of absolute wildness and undisturbed nature, there would probably not be many places where such an ideal could be quite consistently carried out. Probably in all places animals actually dangerous to human life would have to be excluded. Rattlesnakes and copperheads would certainly be condemned, though it is to be hoped that all other snakes would be spared. Weasels would probably have to be checked or extirpated, not only because so wantonly murderous to poultry, but because they might be equally so to birds, rabbits, squirrels, etc., thus defeating the very ends of the sanctuary; and unlimited otters might soon exterminate the fish

in a small lake. Obviously, in a small preserve, the balance of life could not be preserved as in a great wilderness. Army worms, gypsy moths, and their ilk, could not be given benefit of sanctuary, and most farmers would require that coyotes, foxes and such "varmints" be refused. Along this line a sort of compromise would be necessary, and perhaps the only way to effectively meet the difficulty would be to place each sanctuary in charge of a forester, or keeper. This forester should not be a rough, coarse specimen, a police guardian merely, but a man of gentle character, fond of animals and wild life, sympathetic to the artistic possibilities of the primitive and sufficiently educated by observation and study to name and explain to visitors the various animals, flowers, rocks and trees they might be curious about. He should be firm and vigilant, but a gentleman. Necessarily he should be a good shot and a skilled trapper, able to remove undesired animals without frightening the others. Such a keeper would be an absolute necessity to prevent poaching, intrusion of dogs, cats, stone throwing boys, flower thieves, bark thieves, rock painters and the like vandals. He could be domiciled in a little house of logs or stones in the middle of his domain, a house made as much like its wild surroundings as possible.

The position of forester would be an ideal one for a naturalist, especially if his tastes were literary or his health delicate. To this man's judgment could be safely left the task of keeping a wise balance of life in his little world, preventing any one species from extirpating another or becoming a nuisance to the public. He might properly be required to keep a journal of observations on the weather, the habits of animals, etc., which would be valuable as a book of reference. His value as an experienced teacher to visitors and students should be great, too.

The sanctuary should be open to all well behaved visitors, at all hours; but these should not be allowed to take into the park dogs, firearms, axes, traps, or other instruments likely to violate the sanctuary. They should not be allowed to deface or injure, or make frightening noises, remove anything, or to leave lunch baskets, boxes, paper, bottles, or such rubbish. Perhaps the best way to secure these ends would be to require each would-be visitor to get permission from the forester, giving promise to respect in all things the objects of the sanctuary. To save repetition, the forester could have them sign name and address in a book, under a printed pledge, and then give each a badge to be worn conspicuously whenever in the sanctuary; permission and badge to be recalled from anyone guilty of violation.

In one important respect the letter of the sanctuary might be broken in the interest of its spirit. Those who have observed nature, or read Wilson Flagg, know that all small birds and quadrupeds prefer a jungle, or tangled thicket, such as country roadsides show, to a great forest to breed in. Yet, if left to itself, the sanctuary would in the course of half a century have only majestic trees, with little underbrush or cover for the shy and timid nesters. To obviate this, I would advise that a strip of perhaps 2 rods' width, about the borders of the sanctuary, be made into and kept a thicket. This could be easily done by partly severing the trunks of the larger trees every 5 years or so, and bending down and pleaching the tops. The admission of light would cause an immediate junglelike growth of weeds, briars, sprouts and vines, mingling with the plashed tops, till nearly or quite impassable to man and the larger animals. This would quickly become the chosen and true home of most of the smaller creatures in the sanctuary, especially the birds. In the breeding season it would swarm with life and ring with music. Possibly, for the shyer birds, one or more such jungles might be profitably made in the interior. Most of the minor plants and wild flowers would thrive better in these thickets, too, than under the great trees; and where only a small sanctuary could be afforded it might be better to make the greater part of it of this character.

This surrounding jungle hedge would serve several other ends, also. It would attract birds, rabbits, etc., from the outside world, repel pursuing dogs, help to keep out horses, cows and such grazing beasts, and keep out the vision of the outer civilization from the nature-seeker wandering within. In stony countries the farmers living about the sanctuary would esteem it a privilege to be allowed to throw the stones from the clearing of their lands into this hedge, and might be encouraged to do so, as these stone heaps would be ideal castles of refuge for woodchucks, rabbits, chipmunks, red squirrels, mice, snakes, and such small fry.

Birds and small mammals might be encouraged, if necessary, by judicious doles of grain, nuts and seeds; especially if the natural supply were lacking, in times of terrible cold or after severe winter storms.

It would be well, too, to surround the sanctuary with a close wire fence to exclude dogs and grazing animals.

Animals once resident in the neighborhood, but now extinct, or practically so, might be reintroduced, as raccoons, woodchucks, wild turkeys; and a few deer

would be a beautiful feature. The many advantages of such a sanctuary are so self-evident they hardly need pointing out. Nevertheless, I will mention 2 or 3.

As a means of discouraging the wanton cruelty of children and developing a sympathetic love for the lower animals and interest in their life and habits, it could not be excelled.

To an animal artist or photographer, it would be paradise.

As a place of refuge and refreshment for brains overwrought and souls saddened by the conflict, artificiality and shams of modern life, it would be worth inestimably more than its cost. There is no sanitarium like pure nature.

HOW TREES GROW.

I enclose clipping from a recent issue of the *New York Journal*, and appeal to all the brethren of the woods to say if this be true.

In Washington, Me., is a tract of 1,000 acres from which the spruce and pine timber has all been cut in the past 35 years. The tract was formerly owned by the father of the late Judge Richard D. Rice, of Augusta. At the time of the death of the elder Rice no timber had been cut from the land except what had been stolen by timber thieves, who then infested the State.

So extensive had this thievery become at one time that Rice determined to put a stop to it, and to that end he employed a blacksmith to make a great number of iron spikes. He had 2 of these spikes inserted, one on either side, in each of the most valuable trees on the tract, and on each spike were stamped his initials, "W. R."

After that the mill men, who generally knew where their logs came from, would not take any that they suspected of being from the Rice lands for fear the teeth of their saws would be knocked off against the "W. R." spikes. Not being able to sell the logs, the thieves quit stealing from Rice's land.

Some years later, when the land was cleared of timber by its new owners, the story of the spikes was recalled. It was concluded that Rice's blacksmith could not reach higher than 7 feet from the ground and so the operators sawed off the trees at that height, expecting to steer clear of the spikes. But they forgot to allow for the growth of the trees and many a saw was ruined by the "W. R." spikes, which were found 25 to 30 feet up in the trunks.

This assumes that trees grow from below, like the Irishman's house which was built by putting one brick under another till the building was completed.

Trees increase their height by new growths from the extremities of the branches, new twigs each season. A spike driven into a tree 7 feet from the ground in 1901 will be 7 feet from the ground in 2001, if the tree should live so long. Am I not right?

W. H. Nelson, Washington, D. C.

You have correctly stated the facts. Trees grow in length at their extremities; hence a spike driven in a tree at any height remains at that height.—EDITOR.

DESTRUCTION OF WESTERN FORESTS.

Much of the pleasure of my trip to 'Frisco was spoiled by smoke from forest fires. All along the Northern and Southern Pacific railroads there was hardly a moment that one could not look out of the car window and see one or 2 forest fires raging in the hills. Thousands of acres of timber have been destroyed. It was so smoky I was unable to see Mount Tacoma at any time, going to or returning from Tacoma. The train conductor told me he had not seen Rainier for a month, on account of the smoke.

Mount Hood, the beautiful snow peak, and the pride of Portland, was also invisible, as was St. Helens, although the railroad passes within 10 miles of the latter.

Surely something could be done to prevent these terrible fires. They destroy in a few weeks what it takes centuries to produce. Many of the fires, no doubt, are caused by the carelessness of camping parties, prospectors and others; but I believe most of them are caused by sparks from the locomotives, in the dry season. If the Legislatures of these Western States would enact laws inflicting severe penalties on persons causing forest fires, and requiring the railroad companies to clear up all dead and down timber within 200 feet of their tracks, the danger of fires would be greatly reduced, and the forests, what are left of them, saved. A. S. A. Himmelwright,

Darby, Mont.

STATE SHOULD CONTROL ITS FORESTS.

Dr. Judson F. Clark, the newly appointed Assistant Professor of Forestry at Cornell University, who is traveling in Germany to study forestry methods, writes interestingly from the Black Forest: "The forest area under State control is being rapidly enlarged by purchase of old meadows and of private forest property. Most of these newly acquired areas present phases of the interesting and very varied problem of transforming a 'selection' forest into something better. These small private forests, managed under the so-called selection system, are usually *not managed at all*, and by the time the owners are ready to sell to the State the condition of the property is often *little better that a cut-over Adirondack woods.*"

Just as with us; the State gets the property when it has lost its value to the private pocket, when it is already mismanaged and time must elapse for it to become productive again. This observation also gives proof of our contention, that forestry, real forestry, is not profitable to the small owner; it takes large capital, long-continued existence; otherwise the attempt at forest management is soon abandoned.

PURE AND IMPURE FOOD.

"What a Man Eats He Is."
Edited by C. F. LANGWORTHY, PH. D.
Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

SCHWEITZER BREAD.

A combined system of milling and bread-making has been recently introduced in Paris, the object being to convert 100 pounds of wheat into 100 pounds of bread at a low cost and at the same time furnish bread of a superior quality. It is stated that official analyses by the National Agronomical Institute and by the municipal laboratory of Paris demonstrate that the Schweitzer bread contains more nutritive material than ordinary bakers' bread. The bread, known as family bread, *pain de menage*, is sold to the working classes for about a cent a pound less than ordinary bread.

Just as coffee is better if freshly roasted and ground, so, it is claimed, bread is better if made from freshly ground wheat. The flour in this mill, which is a part of the establishment, is ground only in quantities sufficient to meet the daily needs of the bakery.

According to Consul W. P. Atwell, "The wheat arrives in a boat, which is moored in the canal on whose bank the bakery in Paris stands; elevators hoist it into bins, whence it is carried by an immense elevator to the top of the mill and turned into the different cleaning and separating machines. After all foreign substances have been removed and the grains of wheat have undergone a thorough brushing and washing, they are clean and shiny. To prevent the possibility of dust remaining in grooves of the wheat kernels, the grain is run through a Schweitzer appliance, which, seizing each grain lengthwise, splits it exactly in the groove.

"The wheat thus cleansed passes into the mill, composed of flat, circular steel grinders, grooved in such a manner that they accomplish the decoration of the kernel and its granulation into meal at the same time. These grinders are movable, but do not touch, so that, instead of crushing the wheat and producing a very fine flour, a considerable portion of the outer and harder part of the wheat, containing gluten and other nutritive properties, is retained in the flour. The bran alone is expelled.

"Attached to the mill are the works for kneading the meal, water, and yeast into bread. All of this is done mechanically, the works being separated into 3 stories. Special yeast is prepared in the upper story in rooms heated in winter and cooled in summer. The yeast, flour, and the salted and filtered water are carried down by machinery into kneaders having the form of half cylindrical tubs, rotating on 2 pivots placed in the axis of the kneading troughs, so the tubs may be placed at a lower or higher angle in order to accelerate or retard the kneading.

"One person can attend to 2 Schweitzer kneaders, regulating the distribution of the dough, and thus the kneading of 2,000 kilograms (4,409 pounds) of dough an hour is accomplished. The steel arms of the mixing and kneading machinery, some of which are stationary and others mobile, stretch and work the dough much better than hand power.

"The wheat, salted water, and yeast automatically enter one end of the tub, and dough in an endless skein of pale yellow issues from the opposite end. This dough finally falls on tables on the ground floor, where it is weighed and made into loaves of every shape and size. Small wagons are charged with the shapes, which then go to the raising room. Each floor has a fermenting room kept at an even temperature.

"The dough after rising is carried by wagons into the baking room, where it is placed in Schweitzer ovens heated by gas from retorts arranged in such a manner that the gas does not enter the oven, and the heat is so regulated that the baking operation goes on automatically.

"In connection with this model establishment is a laboratory for the chemical examination of the samples of wheat submitted for purchase. Mr. Schweitzer has mills, ovens, and kneaders of various dimensions that may be worked by machinery or hand power. The latter system enables the farmer to grind his own wheat and make his bread from an unadulterated and wholesome product. It is regarded as particularly adapted to the colonies."

JAM BRICKS.

According to the London *Daily Telegraph;* "Commercial journals in the United States are just now directing much attention to the vast development that is taking place in California and elsewhere in the manipulation of fruit pulps and jam, and it seems that something like a revolution in the enormous industry is by no means an impossibility in the near future. Something of the kind has been foreshadowed in this country, and observant visitors to the great exhibitions of groceries and con-

fectionery at the Agricultural Hall last autumn did not fail to note the prominence assigned to partially boiled-down fruits with a view to their ultimate conversion into preserves, seeing in the idea a possible valuable resource to the British market gardener, now so often handicapped by glutted markets and low prices. The aim, however, of the American experts is to go yet farther and to work their pulps with the due proportions of sugar into practically jam bricks. One need not be very old to remember how housekeepers of the recent past used to pride themselves on the stiffness and firmness of their damson or cherry "cheeses," which could be stamped out in fanciful forms with a pastry cutter and were not even sticky to the touch. Those were due to careful boiling to exactly the right point, after processes of putting the fruit through fine sieves and bringing the sugar to candy. This, on a wholesale scale, is what American jam makers want to accomplish, and many experiments in that direction are now being carried out.

Indeed, so far has it gone that a firm of wholesale dealers in American produce submitted to the British War Office a number of specimens of these jam bricks for the use of the troops in South Africa. pointing out the valuable saving that would be effected in freight and transport could oiled tissue paper take the place of the present tins, glass jars or crockery pots. The samples received the fullest consideration, as the condensed soups supplied through the same house had won special commendation from Earl Roberts. The preserves were not adopted, however, which, it may be said, did not cause any surprise to those concerned, who are themselves the first to admit that there are still obstacles to be overcome before a perfect solidified preserve is available. That these will be surmounted within the next few months no one has the slightest doubt, and meantime the samples in this country are attracting much interest throughout the grocery trade. The problems have been overcome with respect to mincemeat, long regarded as impossible of compression; and the traveler, the soldier, the sportsman, or any other to whom small bulk is a consideration, can now purchase a hard, heavy cube of about 2 or 3 inches in size, from which a few fragments chipped off and moistened with sherry, brandy and water or milk, will prove an excellent presentment of the favorite Christmas delicacy.

Incidental to these inquiries, many interesting facts were to be gleaned as to the growing part that fruit pulps from abroad are playing in the manufacture of English jams. When a single order from one noted firm alone amounts to 28 tons of apricot pulp from California, it will convey some idea of the magnitude the system is attaining. Plums, pineapples, quinces, apples, and peaches are also largely utilized in this way, and the latest triumph, as it is claimed, in this direction is that of being able to send to this country strawberry pulp. Small wonder, indeed, that the British grower has cause for complaint that the demand for his products is not what it was. With the treatment of this material on such a scale, it is not astonishing that those who know the wonderful climatic advantages of California for drying should advocate the carrying of pulp preparation a step farther and presenting the jam itself without the costly encumbrances of old fashioned packing.

GRAPE JUICE AND SWEET CIDER.

Fermentation is due to the presence of micro-organisms which, like mold spores, abound in the air. They gain access to the juice or cider after it is pressed, or they may have adhered to the fruit and have been washed off in the juice. These ferments are minute plants and grow in grape juice or cider in the same way that yeast plants grow in bread dough. Their growth may be prevented by sterilizing the juice as well as the vessels used in connection with the bottling of the product. Heating is the simplest, safest and most effective means of sterilizing; but great care is necessary in order to so control the temperature as to secure thorough sterilization without injuring the flavor of the product. A report of the Canada Experimental Farms gives an account of a series of experiments on the best means of sterilizing grape juice. The conclusion, which probably applies to sweet cider as well as to grape juice, was that "the natural flavor of grape juice may be preserved intact by raising the temperature of the juice gradually to 170 degrees F., keeping it at that point 10 minutes and then quickly bottling it, taking care to use absolutely air-tight and thoroughly sterilized vessels. These vessels should be taken from a tank or kettle of boiling water, immediately filled, and corked or covered with the least possible delay."

The use of antiseptics, such as salicylic acid, is considered unwise. They are unnecessary, and unless used with great caution may be injurious to health. Furthermore, the manufacturers, seldom, if ever, state that antiseptics have been used and the purchaser is deceived. Grape juice is frequently given to invalids. In such cases it is especially important not to administer drugs which may be dangerous.

BOOK NOTICES.

EXPLORING OLD GROUND.

In the spring of 1899 an expedition of 126 people sailed from Seattle, Wash., on a voyage of discovery along the coast and inland waters of Alaska. This expedition, the result of a plan on the part of Mr. E. H. Harriman, of New York, to take his family on a summer cruise in those waters, included, in addition to Mr. Harriman's immediate family, 25 men of science, representing various branches of research, including well-known professors in universities on both sides of the continent and leaders in several branches of government scientific work; 3 artists; 2 physicians; 2 taxidermists; 2 photographers; a chaplain, stenographers, and a full crew.

The above is an extract from a circular issued by Doubleday, Page & Co., of this city. The book mentioned therein has been in preparation ever since the return of this great "expedition of discovery," and is now offered to a patiently waiting and expectant public.

The idea of calling such an outfit an exploring expedition, a discovering expedition, or a scientific expedition is amusing to anyone who has really explored or discovered any of the wild country of the North. Here was a party of 126 people, snugly quartered on an ocean steamer and provided with all the luxuries possible to carry on such a craft. The steamer cruised among the islands and through the sounds and bays of Alaska "discovering" certain glaciers, bays, valleys and mountains that had been familiar to hundreds of fur traders, trappers, revenue officers and real explorers for 50 years past. Small parties went ashore from the steamer here and there and made short trips up the mountain sides or over the islands, accompanied by the official photographers, and had themselves photographed in various poses, with backgrounds of glaciers, or mountain peaks, or island forests, and the public is now given a chance to see just how these "scientific explorers and discoverers" look, when they stand up against these natural formations. The price of these pictures of these great explorers, and such text as the authors have seen fit to prepare, is $15 a copy. Three sample photographs are sent out with the circular announcing this book. These so-called discoverers, Professors Colville, Brewer, John Burroughs, John Muir, Mr. Emerson, and Dr. Gilbert are standing in what they evidently consider their most captivating poses and the pictures seem to say to the observer, "this style, $15." It would be interesting to know just how many people will pay $15 for copies of this book. Of course, Mr. Harriman will present each of his 126 guests with a copy, and these people will value it as a souvenir of a great junket; but it would be strange if any large number of other people should put up their good money to see pictures of these people, and pictures of glaciers and islands that have been illustrated hundreds of times in magazines and books, and to read of rivers and mountains and glaciers that everybody has read of hundreds of times and several of which this great "exploring" party rechristened in honor of themselves or their friends. We shall see what we shall see.

The shameless copying of borrowed ideas is one of the most amazing phases of book producing to-day. It can not be called literature. It is a mad rush to put between covers whatever can be made, on any pretext, to sell. Woe the day when Elizabeth wrote of her German garden! Follows a host of unimportant women who rush into print with volumes of what Emory Pottle calls "garden truck." They think they see a chance to prate, before the public, of themselves, their husbands, their servants, and their children. "The Garden of a Commuter's Wife" is one of these efforts. It purports to be by the gardener and is published by The Macmillan Company, New York.

It seems a pity that a writer who can produce such charming literature as "A Journey to Nature" should give his time to putting forth such a machine-made book as "The Making of a Country Home." However, Mr. Mowbray is a newspaper man and accustomed to writing whatever will turn a penny. "The Making of a Country Home" is not to be considered as literature, but it may be an honest attempt to give information. It is published by Doubleday, Page & Co., New York, and will be sent on approval if desired; price, $1.50.

"A Year in a Yawl," by Russell Doubleday, is the third tale of an adventure series, especially interesting to boys. The trip described in this latest book was made by 4 boys, in a boat of their own construction, over 7,000 miles of water.

On request this book will be sent, postpaid, on approval, to be paid for if wanted or returned if not. Published by Doubleday, Page & Co., New York; price, $1.50.

If you wish to make several of your friends happy give each of them a year's subscription to RECREATION. At least once every month they will think kindly of you,

SUBSCRIPTION RECEIPTS FOR 3 YEARS AND 11 MONTHS.

Read the deadly parallel columns:

	1895.	1896.	1900.	1901.
January ...	$379	$723	$3,205	$3,903
February ..	256	693	2,151	3,267
March	300	1,049	1,919	3,710
April	342	645	1,570	2,760
May	292	902	1,377	2,303
June	307	770	971	2,016
July	345	563	854	2,000
August	306	601	1,262	2,245
September .	498	951	1,464	1,940
October ...	438	969	1,842	2,227
November .	556	1,054	2,060	2,570
December .	652	1,853	4,742	
	$4,671	10,773	23,741	

November shows a gain of $510 over same month last year. More hot stuff for the man who is trying so hard to kill RECREATION.

SAVE THE GREY SQUIRRELS.

The grey squirrel is threatened with extermination, and will soon disappear unless vigorous measures are adopted to save him. Shall this be done? Or shall we allow this bright little denizen of the woods to follow the buffalo and the wild pigeon?

The grey squirrel is one of the most interesting and beautiful of our smaller mammals. His grace and skill as a climber; his frequent and daring leaps through space, from tree to tree; his saucy, merry chatter; his industry and forethought in providing food for winter are such as to command the admiration and respect of every man, woman and child who studies him. He is easily tamed and in many city parks are dozens of grey squirrels that habitually eat from the hands of visitors. Who could have the heart to kill one of these beautiful and confiding animals after having seen it eat from the hand of a child in Central Park? I would as soon think of killing the child as the squirrel; and one would be just as much like sport as the other.

The squirrel does not like solitude. He shuns the deep forest and follows civilization. He haunts the small patches of woods among the farms. Thus he is easy game for those who see fit to hunt him. The forests are every year being denuded. The patches among the farms are becoming smaller and smaller every year. Thus is our sprightly little neighbor becoming an easier mark from year to year. Every farmer, every farmer's boy, every city sportsman, is after him; and he is doomed to total annihilation if the pursuit goes on.

Should we not be ashamed of ourselves? Would it not be another crime on our hands to wipe out this lovable and confiding little creature? Have we not, as sportsmen, enough to answer for already?

Then let us call a halt. Let us spare the grey squirrel. Aye, let us save him. Let us henceforth declare him not a game animal, but the special friend, the forest comrade, the protége of American sportsmen. Let us all refuse to shoot him or allow him to be shot, where we can possibly prevent it. Let us secure the enactment of State laws prohibiting the killing of grey squirrels at any time.

What say you, my brother sportsmen? Let me hear from you.

ANOTHER CORMIER GAME.

N. E. Cormier, Chief Game Inspector of the Province of Quebec, who made himself notorious 2 years ago by some questionable transactions with Dr. W. A. Wakeley and some friends from this city, is in trouble again. This time he made a grand stand play and got himself talked about in the newspapers by threatening to punish Judge Gaynor, of Brooklyn, for hunting in Quebec without a license. While sitting around waiting for Judge Gaynor and party, Mr. Cormier encountered Mr. S. Scudder, of New York, a friend of the Judge. Mr. Scudder expressed a desire to settle the charge against his friend, and it is said Mr. Cormier exacted a license fee of $25; another $25 for so-called fees "correctionelle," and another $25 for Mr. Cormier's unspecified expenses. It is reported that Mr. Cormier also required Mr. Scudder to pay $150 for license fees for 3 servants whom Judge Gaynor and party had taken with them into the woods. When the Judge returned to civilization and learned what had been done, he produced a license which he had taken out at Ottawa, on his way into the woods, and for which he had paid $25. The Judge has filed a written complaint against Mr. Cormier, with Premier Parent, at Ottawa, and if this transaction does not result in Mr. Cormier's summary dismissal from the Government service, many sportsmen who have been up against Mr. Cormier's queer games would like to know why.

Six city sportsmen were shooting quails on a farm near New Castle, Pa. They were armed with high priced guns and were guided in their search for birds by

several high bred dogs. Presently a farmer's boy named Reed McBride joined the party, more as a sightseer and student than as a shooter. He was armed with a single-barrel shot gun and chaperoned by a pug dog. He was in the act of climbing a 10-rail fence when a quail got up in front of one of the good dogs. The shooter whose turn it was fired first his right and then his left barrel at it. The bird went on. The boy, who was astride the top rail at the time, took a shot at the bird and dropped it, and the pug retrieved it in good shape. The dog, who seemed to be well versed in the matter of courtesy, delivered the bird to the city sportsman who had tried so hard to kill it. The boy patted the dog on the back and said O. K. The city chap in turn passed the bird over to the farmer's boy and said to his friend that this was the first pug he had ever seen trained to retrieve birds.

Game and Fish Commissioner Harris, of Colorado, has made another big haul of law breakers. This time the victims are Indians. Mr. Harris went to Meeker in October last and organized a posse of 8 men, including Sheriff Amick, Deputy Sheriff Aichers and 5 cowboys. All the men armed themselves with Winchester rifles and 6-shooters, mounted themselves on good horses and raided a camp of Ute Indians who were slaughtering deer on White river. They captured 4 bucks, a contingent of squaws and pappooses and 200 deer hides. The Indians were turned over to Sheriff Amick, were lodged in the County jail, and will be dealt with according to law. Mr. Harris is doing splendid work, and if the sportsmen and other taxpayers of the State will stand by him he will certainly break up the vast army of game hogs, white and red, that have for so many years been slaughtering the game of that State.

John R. Goodall, a commission merchant in San Francisco, Cal., was arrested over a year ago for having quails in his possession during close season. He was convicted and sentenced to pay a fine of $20. He appealed to the Superior Court, and in the trial there the judgment of the lower court was affirmed. In August last, Mr. Goodall filed a petition for a rehearing. This petition came up in court Oct. 12 and the motion was denied. This was the last resort for Goodall, so he walked up to the captain's office and settled. It is safe to estimate that his lawyer's fees and other expenses in this case have aggregated at least $500, so Mr. Goodall will probably deem it wise to keep on the safe side of the law in future.

The American Copper Extraction Co., of Rahway, N. J., was recently fined $100 for discharging poisonous chemical matter in the Rahway river. The company fought the case openly, and the fact that the court sustained the complaint of the State Fish Commission and punished the offenders established an important precedent in the interest of fish protection in New Jersey.

Major John Dunlop, Dr. Brinkman, and Dr. St. John, of Hackensack, N. J., went to New Brunswick last fall and had an interesting hunting trip. Major Dunlop carried off the honors of the trip by killing a moose and a caribou. The heads were shipped to a taxidermist in Bangor, Me., to be mounted and will later be on exhibition at the major's home.

I am informed that a moose head exhibited by the Ontario Government at the Pan-American Exhibition has a spread of 67 inches. Can any reader of RECREATION verify this statement? The moose is said to have been killed at Powassan, Ont.

Traveling man to Kansas farmer.

"Where do you get water?"

"Up the road about 7 miles."

"You haul water 7 miles for your family and stock?"

"Yep."

"Why in the name of sense don't you dig a well?"

"Because it's jest as far one way as the other, stranger."—Exchange.

When Tillie used to cross my path,
Afoot, or riding on a wheel,
Her passing-by an aftermath,
A breath of violets, would reveal.

But in her auto, she, to-night,
So fast that it could not be seen,
Rushed by me; and though failed my sight,
I knew she passed—by gasoline.

I have taken RECREATION several years and always read the advertisements as eagerly as the stories. When I get through with it I lend it to at least a dozen of my friends, all of whom say it is one of the best of sportsmen's journals.

J. E. Kirkbride, Boulder, Colo.

She: You don't know what it is to love.

"I don't, eh? Haven't I been to every play, read every popular novel in the last six months, got into debt hopelessly, had my appendix removed, and all for your sake?"—Exchange.

PUBLISHER'S NOTES.

A LADY'S VERDICT.

She whose guardian angel guides her wandering feet to the Rock Island Railway may well bless that celestial caretaker that he has so wisely chosen. The exigencies of climate in Washington, D. C., that city of frequent weather changes, put it into the wise head of my physician, some months ago, to order me to fly to the mountains of Colorado for the sunshine and healing denied by the Capital City. A kind and thoughtful friend, who had taken an interest in my welfare, procured my ticket via the Rock Island route from Chicago to Denver. I was fortunate in having the gentlemanly assistance of a friend from Cincinnati to Chicago, and was placed by him in the Rock Island depot, whence a train, due to start at 10 p. m., was to transfer me and all my worldly wealth—the latter packed in a trunk—to the Queen City of the Plains. My experience with the road began with the agent in the depot at Chicago. The little details concerning transportation, which are so puzzling to inexperienced lady travelers, he attended to for me with an air of being favored rather than of conferring a benefit. When the train was announced for departure I was assisted to my place and made as comfortable as if I had been the officer's sister. Let it be his guerdon that a lonely girl, a stranger in that great city, is deeply sensible of his gentle goodness, and profoundly grateful for it. The cars are marvels of splendor and miracles of comfort. What a wonder the American railroader is, as a purveyor of luxuries! As much at ease as if at home I made the long journey from Chicago to Denver. The trainmen were considerate and watchful, the conductor a prince and the porter a guardian.

The management has provided a roadbed over which their trains roll without jar. One glides, instead of jerking and jolting. Talking is not an effort and dozing is natural. But the dining car! What can I say that will give the prospective tourist an idea of the delights which wait on appetite there? Not only is the *menu* extensive and elaborate, but the cooking is perfect. Everything that comes before the traveler is prepared with the highest art, and it is placed on the table in the most alluring fashion. There, if nowhere else, the invalid can eat. It looks good; it smells good; it tastes good. There you call for what you want, and pay for what you get. It is dinner *a la carte*, served piping hot, tempting and satisfying. All you have to do is to eat. The cook and the waiters have done the rest.

Dear girl in the sizzling, drizzling, freezing East, do you contemplate a visit to the mountains, with their sunshine and their balm? Come to Colorado, over the Rock Island road. Come to Boulder and learn what it can be to live where Nature—not the politicians—furnishes the wind.

Edna C. Nelson,
Boulder, Colo.

QUAIL SHOOTING IN NORTH CAROLINA

An experienced sportsman and regular visitor to the North Carolina shooting grounds has the following to say of the quail prospects this season:

Reports from the different sections of North Carolina credit quails as being more plentiful this winter than they were last. A reasonably diligent hunter with fairly good dogs can easily find one to 2 dozen bevies a day. Topographically there are 2 hunting sections in the State, the Piedmont or that part of it comprised in the foot hills and rolling lands, and that East of it, which is leveller to the coast. As far as birds go, there is little choice. In the foot hills there are fewer briars and sand burrs, rather more open cover shooting, and more exercise. The level section is easier to get over, and so location is a matter of choice. In the river sections of the Piedmont, the better hunting will be off the river bottoms, owing to the numerous and high freshets last summer, which washed the bottoms out, destroyed the corn and wheat and drove the birds back; but as these bottom lands are narrow, it will make no material difference to the sportsmen in regard to their location. The open season of North Carolina begins November 1. Many sportsmen prefer December for their annual quail shooting because then the climate is more bracing for field work.

The Southern Railway has issued its "Hunting and Fishing" for 1901-1902, which gives localities and stopping places, and it would be well for sportsmen not informed to open correspondence with some of the persons named. The book is without bias, and aims but to help the hunting fraternity.

The Polk Miller Drug Co., of Richmond, Va., is using RECREATION to call attention to the merits of "Sergeant's Dog Remedies," a line of preparations Mr. Miller has sold with signal success for the past 15 years. Possibly more dogs have been cured by the timely use of these well-known

preparations than with any other similar line existing. Polk Miller, who originated them, and who is an author of considerable note, is president of this company, and for 40 years has had practical experience in treating the various diseases peculiar to dogs. A revised edition of his book on "Dogs—Their Ailments—How to Treat Them," including a pedigree blank, can be procured by sending the company 3 cents in stamps. This book, because it gives an accurate description of the more frequent diseases with which dogs are afflicted, will be found invaluable to every dog man and kennel owner.

The Pneumatic Mattress & Cushion Co., whose advertisement appears elsewhere in this issue, a concern with which every sportsman should be acquainted, intend to introduce themselves more widely to the sportsmen of the country during the coming year. To this end they have contracted for advertising space in all the leading sporting publications and have had an exhibit at the Philadelphia Sportsmen's Show. They will undoubtedly be represented at the Chicago show, and have already contracted for large space in the New York show. If sportsmen remain ignorant of the ease and comfort secured by the use of the Pneumatic mattress while camping or at home it will be their loss.

Geo. H. Daniels, G. P. A. of the New York Central Railway, is issuing a monthly bulletin called "The Four Track News," every number of which contains a large quantity of reading matter of deep interest to every person in search of general information. A good deal of this material is selected from the best newspapers and magazines in the country, and covers a wide range of subjects. Other portions of it relate to the operation of the New York Central System, and to the country, the towns, cities, mountains, lakes, etc., which it reaches. It is well worth the while of any person who wishes to be well informed on all the topics of the day to subscribe for "The Four Track News."

The Massachusetts Audubon Society has arranged with the Taber Prang Art Company to publish a bird calendar for 1902. I have received a copy of this calendar, and it is truly a beautiful production. It consists of 6 large plates of exquisite drawings of birds, and a calendar for 2 months is printed on each of these plates. The bird pictures are reproduced in colors, with all the spirit and fidelity of the original water-color paintings. A description of each bird appears on the back of each plate. The calendar sells at 50 cents, and every bird lover should have a copy of it. Address Harriet E. Richards, Secretary, Berkeley Street, Boston, Mass. Please mention RECREATION.

The President suspender, which is advertised in RECREATION, and which is made by the C. A. Edgarton Manufacturing Co., Shirley, Mass., is the most perfect article of the kind I have ever worn. When you need another pair of suspenders, try this brand. If your furnisher does not keep them, and offers you something "just as good," you should decline it, and should write the manufacturers for price list. In doing so, please mention RECREATION.

The Ideal Manufacturing Co., of New Haven, Conn., has issued its new Hand Book No. 14, which, as usual, contains a lot of new and valuable information to rifle, pistol and shot gun shooters. There will, of course, be the usual large demand for these books, and lest the edition be exhausted before all are supplied, it would be well to write for a copy at once. In doing so please mention RECREATION.

The Savage Arms Co., of Utica, N. Y., has recently issued a circular regarding rifle sights. This is the result of a great deal of study, of many experiments and of a large correspondence carried on by the Savage people, with users of rifles. Every big game hunter and every target shooter should have a copy of this circular, and can get it for the asking. Please say you saw it mentioned in RECREATION.

H. J. Putman & Co., Minneapolis, Minn., have issued the finest catalogue I have ever seen of hunting boots, shoes and moccasins. The illustrations are superb and the descriptive text is complete and specific in every way. If you expect to buy a pair of hunting boots, shoes or moccasins, I advise you to write for this catalogue at once. In doing so, please mention RECREATION.

Sept. 3, 1901.

Messrs. Hemm & Woodward,
Sidney, Ohio.

Gentlemen: I have tested the wick plugs to my satisfaction, and heartily recommend them to every sportsman.

Rupe Barmby, Boston, Mass.

The New Jersey Aristotype Co. is located at Nepera Park, N. Y., instead of at Rochester, as was stated in a recent number of RECREATION. The company belongs to the General Aristo Co., and the Eastman Kodak Co. is its trade agent.

THE GRIZZLY I DID NOT KILL.

C. M. COLEMAN.

It was in the fall of 1899, in the Gallatin basin, Montana, near the foot of Old Baldy mountain. I was a tenderfoot, with a quenchless thirst for the blood of a grizzly. My friends banked low on probabilities, but I still hoped. I had camped and hunted six months in Montana and Idaho, but no grizzly had fallen to my rifle, and the hunt was almost over.

Anceney had returned home. Levinski, the boy Charley, and I were moving camp. We stopped in a little park to repack the horses, and missing some articles, sent Charley back to find them. Becoming impatient over the delay, I called him loudly. I received no answer, but heard distinctly something crashing through the bushes in the creek, and supposed it to be Charley and his horse. I was vexed at his failure to answer, and commented severely on it to Levinski, who thought I had been deceived by the wind. I knew better, but said nothing, and we sat down to rest and wait.

My rifle was on my saddle, and my horse was grazing among the pack animals. Levinski's rifle was also out of reach. Hearing a further noise, I looked toward the creek, and saw a large black animal approaching us. I thought it was Charley's horse, coming through the high bushes. Levinski remarked at the same time that Charley's horse was returning bare-backed. This confirmed my impression, and I resumed our talk.

Suddenly Levinski threw himself backward, and rolling over and over down the hill, got up and ran, looking for his rifle. Turning, I saw a grizzly, as big as a cow, at the edge of the bushes, within 50 feet, rolling her shoulders, and snapping her jaws ominously. I was utterly helpless, having only a hunting knife, and she was so close that I felt sure if I moved she would rush. I believe she would have charged in another instant, had her attention not been directed from me to the horses, which took alarm, and rushed through the bushes with a great uproar.

At that instant Levinski returned, but had some trouble with his rifle, and when he did shoot the bear was passing behind some large trees, so he missed. At the sound of the rifle a cub, which we had not seen, ran back toward the creek, in an opposite direction from its mother. I rushed for my rifle, but my wretched cayuse was scared. Precious moments were lost in calming him and getting my rifle from the saddle, and though I ran my utmost, and almost burst a lung climbing the mountain, I never saw the bear again. The dogs overtook her, but were driven back, and she made good her escape. If I had had my rifle in hand at first, I should have had a splendid shot at the greatest game animal in the world, at such close range and under such favorable conditions that I should certainly have killed her.

Levinski had hunted bears for a living 15 years, killing over 200 in that time, many of them grizzles of the largest size, and he declared that one to be the largest he had ever seen; also the second black grizzly he had ever seen. She was within 100 yards of us when I called Charley, and must have heard me; yet she fearlessly approached us, with our horses and dogs, as if we had been a band of sheep.

We were both furious. I hope the attention of the recording angel was fully engrossed in another quarter during the next hour, and I can not yet recall the affair without losing self-restraint. Having exhausted our vocabularies, we remounted and resumed our journey, the dogs and horses seeming to share our gloom. Even killing a fine bull elk a few days later failed to cheer me. To this day I have not killed a grizzly, and shall probably never kill one. *Sic transit gloria mundi!*

Briggs: They say those India Yogis can keep their minds fixed on vacancy for hours at a time.

Griggs: That's nothing. I spent a whole week recently reading the short stories in the magazines.—Life.

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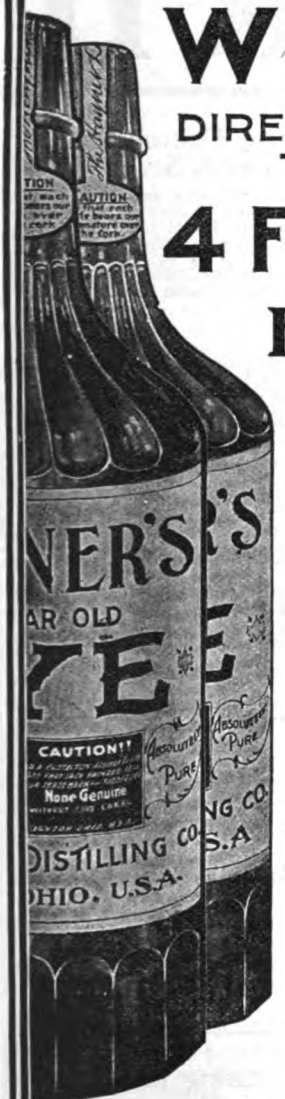
PURE RYE WHISKEY

DIRECT FROM DISTILLER TO CONSUMER

4 FULL QUARTS FOR $3.20



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One hundred and fifty thousand customers throughout the United States use our whiskey—ample testimony as to its purity and quality.

Save the enormous profits of the middlemen. Such whiskey as we offer for $3.20 cannot be had elsewhere for less than $5.00.

Our distillery was established in 1866. Thirty-four years' reputation is behind our whiskey.

REFERENCES: Third Nat'l Bank, Dayton; State Nat'l Bank, St. Louis, or Express Co.'s.

WRITE TO OUR NEAREST ADDRESS

THE HAYNER DISTILLING COMPANY

226-232 West Fifth St., Dayton, O. 305-307 South Seventh St., St. Louis, Mo.

N. B.—Orders for Ariz., Col., Cal., Idaho, Mont., Nev., N. Mex., Ore., Utah, Wash., Wyo., must call for 20 qts., by freight, prepaid.

I guarantee the above firm will do as it agrees—EDITOR.

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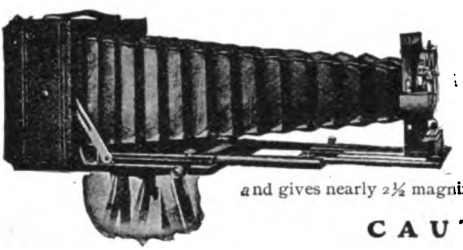

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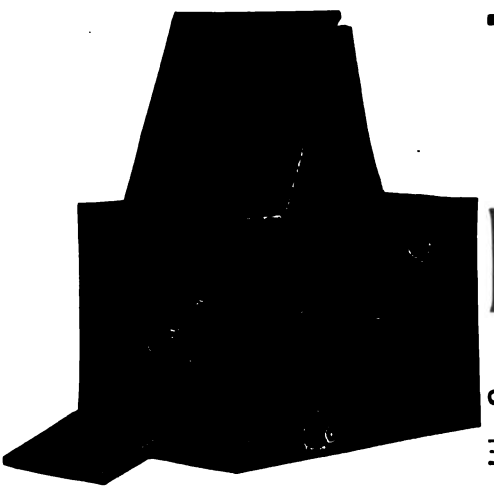
CRESSKILL, N. J.



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Mention RECREATION

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AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

THE BEAVER PICTURE.

I send herewith my negative vote in the matter of awarding to Mr. Balch the first prize in RECREATION'S contest. I have devoted over 10 years to the study of scientific photography, especially along the line of trick, or monstrosity, work. I have read carefully all articles that have been published on this subject, and I draw my conclusions from those articles, together with the experience I have had in this class of work. I agree with the writer in July RECREATION in every particular, with the exception of the size of the nearest beaver as measured on the negative. Before considering myself qualified to talk on this matter I took a photo of a stuffed coon, using a 5 x 7 Karona, at a distance of a trifle under 10 feet, and, after a careful measurement, the coon's length, exclusive of tail, was 1¼ inches.

Beaver are hard subjects indeed, chiefly on account of their shyness around things that have been recently disturbed. Unless the noise made by the opening of the shutter was slight, the beaver would have beaten a hasty retreat. They are sensitive in this particular, and really have more common sense than they are usually credited with. All objects on the negative being in sharp focus, would at once suggest the use of a small stop, and it would not be an easy matter to obtain a good negative even in the bright sunlight with a one second exposure. Therefore, Mr. Balch has evidently made a bungle about this. I have taken pictures of minks in Arkansas; and on account of the color of the animal it has been a difficult matter to get a good negative without the use of a small stop and plenty of time. If anything, the beaver is a more difficult subject, because of the lack of contrast between his color and the probable surroundings; and to say that those beaver remained absolutely motionless for the period it would require to impress the dry plate, is absurd in itself. It is my opinion, based on actual experience, that those beaver were killed and placed in a position as near to life as possible, and, after they stiffened sufficiently to insure their rapidity, they were placed in position to be photographed; thus accounting for the much talked about string. I did this same thing with a favorite dog that had been poisoned, and I challenge any person not familiar with the facts to prove that the dog is not alive. If you desire it, I will send you a proof to substantiate my statement.

E. C. Way, Lincoln, Neb.

Readers of RECREATION in this village have become interested in the beaver picture discussion, because we have some ground for thinking the picture may have been made on Blackwater brook, or one of its branches, in this county of Aroostook, instead of in Penobscot county, as claimed, and within 30 miles of this place. Also, things have come to our knowledge, outside of what has been written, which warrant the suspicion that the animals may have been dead when photographed.

But be these things as they may, there are 2 reasons why Mr. Balch must contend that the beaver were alive when the picture was made. First, because he so stated and therefore must continue to assert. Secondly, because, in this State, there is a perpetual close time on beaver, and has been ever since 1893. The original act creating said close time, which I drafted, would have expired by limitation in the spring of 1897, but before that it was renewed for another period of 6 years. Under the provisions of that act there is a penalty of $25 for each beaver caught, killed or destroyed. In 1899 the Legislature gave the Commissioners of Inland Fish and Game authority to grant permission to persons to take beaver; but I am informed they have never availed themselves of the authority given, except in a few instances to take beavers alive for park purposes. I assume, therefore, that Mr. Balch had no authority from the commissioners to take beavers. If he had, that fact can be easily ascertained by writing to Hon. L. T. Carleton, chairman of the commissioners, at Augusta, Maine. So it will be readily seen that if the animals in the picture were dead, somebody is undoubtedly liable for violation of the law, unless it can be shown that the beavers died of old age, whooping cough, cerebrospinal meningitis, or some other disease to which they are subject.

If the beavers shown in the picture were alive when the photograph was taken, then Mr. Balch richly deserves his $100, for he has performed far more than an ordinary feat in photographing them at work. If they were dead, then somebody should explain just how they came to their death.

Geo. H. Smith, Presque Isle, Me.

I have been closely following the discussion on the genuineness of the beaver photo by Mr. Balch. I do some hunting and trapping, and my experience in that line convinces me that the pictured beavers were dead. One important point your experts have overlooked. They say there

is a string tied to the paw of the animal on the left of the photo. Don't you notice an upright switch a little to the left of the base of the tree the beaver is resting on? To steady the beaver against the tree, Mr. Balch propped its paw with that switch. Where the switch meets the paw it forks to the right and comes between the paw and the range of the camera. That part of the switch being more exposed than the rest, the light glistens on it and makes it appear white. As you say, the body does look unnaturally large around the chest. The eyes of the beaver on the right have the dull, glassy look of a dead animal's; but the damaging evidence on this beaver is its ears, which are laid back. If it was quietly cutting wood, as Mr. Balch claims, how is it that it had its ears back, a position they would assume only when the animal was frightened or in a fighting mood? The marks in the fur are immaterial; wet fur will often stick in bunches.

Byron Dickson, Olney, Pa.

I have read the whole controversy on Mr. Balch's beaver picture with much interest. From the comments of those who seem familiar with the habits of beaver. I have drawn my conclusions. I have had a little experience with photography, having been in the business 4 years, and have found it hard to get so distinct a picture at the time of day Mr. Balch claims to have taken his, especially at that time of year.

W. W. Wilson, Washington Depot, Conn.

Mr. Balch does not deserve any prize. I am an amateur photographer, and do not think such a negative as Mr. B.'s can be made after the sun is down, without giving at least one second's exposure, and I think 5 seconds would be better.

C. C. Spooner, Bull's Bridge, Conn.

I have taken many photos of game, and the 2 points that strike me as being most against Mr. Balch are the matter of light at 4 o'clock in the woods and the apparent distance of the camera from the beaver.

H. K. Bogart, Mesa, Colo.

PRACTICAL INTENSIFICATION.

One of the most common difficulties that worry the amateur is how to deal with thin negatives. Whether through ignorance or through a desire to secure all the detail in the beautiful scene before him, the negative is often much over exposed. Consequently, in developing it is impossible to get the requisite density, and the negative, although full of detail, will not yield anything but a flat mealy-looking print. To get the requisite density to give good contrast it is, of course, the proper thing to expose correctly, but as this is not always done the next best thing is to have recourse to intensification. Thin negatives, caused by over exposure or under development, are much improved by intensification, the high lights becoming more intense and the negative more vigorous. Under exposed negatives are often thin and the details imperfect. If slightly under exposed they may be improved by intensification, but if much under exposed and the detail is not there, intensification would only make matters worse, and nothing remains but to throw the negative away.

Many formulae have been advocated for intensifying, but that most commonly used is bleaching the negative in bichloride of mercury, and blackening again in dilute ammonia water or sulphite of soda. This answers well if carefully done, where only slight strengthening of the details is needed; but the real intensification is but little and hardly worth the risk to the negative.

There is risk in the process, and it is better to practice on some discarded negative before treating any pet subject. The principal cause of failure is lack of cleanliness in the dishes employed and want of thorough washing between the various processes. There must be thorough washing to remove all of the previously used chemical from the film.

A formula which I now use gives me the best satisfaction. I got it from a professional friend who uses it exclusively, and who purposely over exposes his negatives and afterward gets the required density by the use of this intensifier. The intensification is real, and care must be taken not to carry it too far. The solution acts in proportion to the amount of silver contained in the film, the high lights becoming more intense as they contain more silver, while the shadows containing less silver are less affected, thereby increasing the contrasts.

It is easily controlled, quick in action, and the solutions can be used repeatedly until they cease to act. For use prepare the following:

1. Bichloride of mercury ..... 96 grains
   Bromide of potassium..... 96 grains
   Distilled water ..... 12 ounces

2. Crystallized cyanide of potassium ..... 90 grains
   Nitrate of silver ..... 96 grains
   Distilled water ..... 12 ounces

The solutions should stand 2 days before being used. The negative must be perfectly fixed and thoroughly washed. Place it in a tray containing sufficient of No. 1 solution to cover the plate. Rock the tray gently. If only slight intensification is desired remove before the plate has whitened through to the back and as soon as it has grayed all over the surface. For stronger intensification allow it to remain until it has whitened through to the glass.

The plate is then removed and washed thoroughly in running water to remove all the mercury solution; then immersed in a tray containing No. 2 solution, where it quickly changes and where it must remain until the grayness has all disappeared from the back, but no longer, as the cyanide in the solution would then begin to reduce the density. The plate should then receive a final washing which should be thoroughly done to ensure permanency. The secret of success in intensifying is to remove all the chemicals from the film before and after all operations by thorough washing.

Both solutions are deadly poison. They should not be used by anyone having cuts on the fingers or sores on the hands.—Wally, in the Camera and Dark Room.

DARK ROOMS EVERYWHERE.

When on a photographic tour it is sometimes desirable that the exposed plates be developed, to ascertain if proper exposure, composition, lighting, etc., have been obtained. Most photographers leave the developing of the plates until their return home, being under the impression that it is impossible to do otherwise. It is, however, a simple matter, and one that well repays the slight trouble involved. I have developed plates in log cabins, farm houses and city hotels, with perfect cleanliness, as follows:

Every room being a dark room at night, requiring only the closing of doors and drawing down of window blinds, the only articles necessary are 2 trays, one for the developer and one for the fixing bath; a folding candle lamp, one yard of oilcloth, a packet of powdered hypo and a bottle of developer. Also borrow 2 ordinary pails, each half filled with water. Laying the oilcloth on the table, pin the corners up so as to form a large dish, place the lighted candle lamp in the center with the developing tray in front and to the right side, the fixing tray in front and to the left side. Just behind the lamp place the 2 pails, one to the right and the other to the left. All operations will be conducted over the oilcloth dish, and not one drop of any kind can fall on the floor.

Close and fasten the doors, throw a towel over your shoulder, draw a chair up to the table and sit down. Take the first plate from the holder, rinse it thoroughly in the pail on the right side of the table, place it in the developing tray, and, when developed, rinse off again in the same right-hand pail, to stop developing. Having carefully inspected the plate pass it over and into the fixing tray, where it remains while plate No. 2 is being developed; after which the first plate is removed from the fixing bath to the left-hand pail, slightly rinsed, and stood up on end, face in toward the sides of the pail; the second plate, meantime, going into the fixing bath. Leave the plates in the left-hand pail an hour, after which stand them around the outside of the pail to dry and pack them in the morning. These negatives, of course, contain some hypo, which would in time spoil them, therefore wash them thoroughly on returning home.

To change the plates in the holders during the daytime, draw down the blinds, making the room as dark as possible. Turn down the bed covers and place the holders with the exposed plates in the center of the bed, with a box of unexposed plates alongside. Replace the bed covers, and by passing the arms underneath, one can, without difficulty empty and refill the holders. The film side of the plate is easily recognized by aplying the finger nail. Place the exposed plates in the box and close it before lifting the covers.—W. B. Blackhall, in the Canadian Photographic Blue Book.

CHAT HERE AND THERE.

Waxed paper such as is used to wrap around butter is a fair makeshift for a tray. I used 2 pasteboard boxes recently for developer and hypo, merely pressing 3 thicknesses of this paper down in the boxes first. A ream of such paper costs about 25 cents, and it will be found excellent for this and other photographic purposes. A funnel made of any stiff, clean paper is just as good to return chemicals to their bottles with as a glass funnel, and does not have to be washed, since it is cheap enough to throw away each time.—E. W. Newcomb, in the Photo American.

Did you ever have a plate fall into the camera when the slide had been drawn from the holder? It sometimes happens, and one need not lose the plate if he happens to wear a dark coat. Cover the front of the camera with the coat, push the hand up one sleeve and remove the lens and front board while the bellows are extended. Let the lens stay in the sleeve while you put your hand through to the plate, and then by turning the camera over, the plate can be replaced with one hand.

A handy little instrument is a reducing glass. It is merely a round, double concave bit of glass on which I pasted a few strips so as to form a parallelogram, but that little tool tells me at a glance whether things compose or do not, and aids me in making them compose if they do not. One can not take in a whole landscape or room so well by looking at the scene itself as by looking at a reduced picture of it, and that is where the reducing glass comes in.

It is remarkable what a great improvement is effected by ruling a line around a print, on the mount, with a blunt instrument. A dulled punch a knitting needle,

or, for wide lines, a piece of bone, will indent a line on the softer cardboard, and, properly done, the labor is well rewarded. I have made several points of bone, and rule ordinary dark cover paper close to the print with one or another of these tools, to the great betterment of my picture.

Transparent celluloid diaphragms, dyed slightly yellow with picric acid, may be used for ray filters, diaphragms, and to afford nearly as much light on the plate as full opening would, yet yielding the effect that the real opening in the diaphragm does ordinarily as regards definition. Diaphragms made of wire screen have been used to obtain light and definition at once, but this wrinkle is better, and is not impracticable.

Excellent thin brass for pinhole photography can be secured by buying a cheap card of pearl buttons. What the brass is there for is not made known, but it is the best and thinnest brass I know of.

COMPOSING THE PICTURE.

Never place the principal object exactly in the center of the plate; nor the sky line half way up the plate. These are 2 well-worn art rules.

They are so far correct that in 99 cases out of 100 the final picture of a pictorial worker follows them more or less closely. Yet if you were present when the worker was composing his picture on the ground glass, I think you would often find him wildly transgressing these laws. An almost safer law for the beginner would be: Get in as much as you think advisable on your screen, as much sky and as much foreground as you think you may possibly need. In fact, take in rather more than you will need. Allow plenty of margin around the edge of your future picture. Compose only as far as the main objects and the general *motif* are concerned. Leave questions of shape and size till later.

The view on the ground glass screen should merely be the egg of the final picture. It is a work of art in embryo. The real business of polishing it up, of toning down, of adding final touches, of cutting out what is not wanted, and so on, comes only with the trial proofs. Each print should be carefully considered, carefully cut, carefully sunned. This, after all, is the true composing.

The trimming knife is, in the hands of the skilled worker, the most useful aid to composition in existence. Ruthlessly cut away everything that is not absolutely necessary, that does not contribute some real help, to the *tout ensemble*. Do not be afraid to make your print small, or of an odd shape. Narrow prints, upright or horizontal, are often highly effective; but do not be pinned down to one style. Let each picture be just the right shape for itself, whatever that may be; and do not shirk seeking long and carefully till the right shape is discovered. Remember always that you are trying to produce a composition of your own brain; not an advertisement for your lens.—*Photography.*

PROTECT YOUR LENSES.

Few photographers realize the care taken in the manufacture of a first-class lens. There is scarcely an industry in which the standard of workmanship is so high; yet a lens, when it reaches the photographer, frequently receives no more attention than any other portion of his outfit. After many years' use, the surface of a lens, with ordinary care, should be in as good condition as when the instrument left the optician's hands; but how many do we see free from scratches, or from blemishes? The durability of a lens was forcibly impressed on my mind recently by seeing one the surfaces of which were in perfect condition, although the lens had been in use 10 or 12 years. If lenses are left attached to the camera, keep them capped when not in use. If taken for use out of doors, carry them in a substantial leather case. Clean your lenses periodically and keep them in a dry place, where the temperature is even. To clean the lenses, unscrew them from the tube and carefully dust them with a camel's hair mop; then moisten the corner of a perfectly clean old linen duster with methylated spirit, and, after wiping each surface, rub it quite dry and polish it with the other end of the duster, folded into a small pad. The chief thing to avoid is the rubbing of any dust or grit on the surface of the lens and thus scratching it. It is, therefore, recommended that each surface should be dusted with the brush, and that only well washed, soft linen rag should be used for the polishing cloth. Dust the lenses again before returning them to the tube. They should be screwed well home, but not too tightly, or the lens may suffer. —The British Journal Photographic Almanac.

ON EXPOSURE.

I wonder how many amateurs ever made a calculation of the latitude their instrument gives them in the matter of exposure when making snap shots.

Take the case of an ordinary lens and shutter for snap shot work, an ordinary make of plates, a lens working at f/8 to f/64, a shutter with speeds from 1 second to 1-100th second, and, say, Cramer plates, ordinary to special rapid, and I think it will surprise many amateurs to know that the greatest possible snap shot exposure with these combinations is 38,400 times the least possible.

This takes no account of the light, the other great factor in exposure calculations,

which introduces a still greater range. The calculation considers only the mechanical adjustment of the instrument and the plate speed.

I am not insulting the great body of amateurs by suggesting that anyone, even the veriest tyro, would be so fatuous as to use either of the extremes of combination given above. But I know of an actual case, revealed by a beginner's note-book, in which 2 exposures made within 20 minutes one June evening were as 1 to 80. The exposures were made from a window, in the hope of catching a fine effect of lighting. On developing the first, sufficient over exposure was shown to lose the desired effect. The second exposure was immediately made, and, on development, of course there was not a sign of any fine effect on the plate. My friend was astounded when I pointed out that the second exposure was 80 times less than the first.—Amateur Photographer.

PHOTOGRAPHY IN THE PUBLIC SCHOOLS

I do not wish to advocate an additional burden for the already overtaxed brains of school children and make the study of photography in all its various branches obligatory. That would probably take from our beautiful art and fascinating science a great deal of its charm. I shall be satisfied if this article creates an interest in and a discussion of the question. The teaching of the fundamental principles of photography in school, with some practical illustrations, can be made a joyful and useful pastime to the little student.

There is no other educational factor which could possibly have a greater influence on a child's character and faculties than the practical and intelligent use of the camera. It trains the eye early to form a quick judgment of visual objects. It compels the child to concentrate its attention. It forces it to be careful and clean, if it desires excellence and superiority. With advancing expertness and skill, the child will be ready for the scientific instruction. The first want is a compendious book, which sets forth in plain language the great features of the science, without perplexing the beginner with too much detail. In this respect many of our most popular works are defective.—Johannes Meyer, M. D., in the Camera and Dark Room.

SINGLE TONE FOR PLATINO.

Can you give a formula for making Aristo single tone for platino paper?

Would it be a good idea to take a developing formula, powder the chemicals and mix together, then, when you want to develop, dissolve the necessary quantity of the powdered chemicals in the proper quantity of water?

F. K. Beek, Galion, O.

ANSWER.

The only formula I can recommend is that sold by the American Aristo Company for obtaining black tones without the use of gold first and then platinum. Hypo must be used afterward to fix. There is no combined toner and fixer, if that is what you mean, that I would recommend for platino. If such a thing exists Mr. Tom Pattison, of Jamestown, N. Y., care of American Aristo Company, will tell you of it.

I do not believe you could mix the various chemicals intimately enough to use portions of powders. You would be likely to get too much of one thing and too little of another. Some do this sort of thing with drugs and believe it right, but I don't like the proposition.—EDITOR.

TOO MUCH EXPOSURE.

I am using a 5 x 7 Al-Vista camera, and crown plates. So far I have not been able to make a decent print. I use Solio paper and Eastman's developing powders. I thought I was getting a good camera when I bought a 7f Al-Vista, yet my plates are yellow; not clear and transparent, as I think they should be.

C. N. Truman, Ash, Col.

ANSWER.

From your account it would appear you are giving far too much exposure. Wide open lens and bright sunlight would require an exposure of about 1/200 second in your clear atmosphere, and it is a wonder you got anything at all.

Your camera is all right, as are the developing powders and paper. Try a dozen Carbutt B plates, and when the light is good get a focus with wide open lens; then stop down to f32. Give 2 seconds in bright light if the scenery is fairly open; one second if very extended, such as a distant view from an eminence, and 4 or 5 seconds if in the shade and the object is near. I am sure I shall have better reports from you if you follow this advice.—EDITOR.

HOW TO PROTECT YOUR FINGERS.

Take 5 or 6 discarded 4 x 5 films, place them in a tray and pour hot water over them, or better still, immerse in a solution of caustic lye for an hour or 2; wash, then dry, trim, cut into narrow strips and put in a wide-mouth bottle, and pour in a mixture of 2 ounces of alcohol and 2 ounces of ether. This will readily dissolve the celluloid. Add ⅛ ounce of castor oil. This is essential, as it prevents the film from cracking. After the mixture

is dissolved each finger should be dipped into it and the hands swung rapidly around for 2 or 3 minutes so the solution can set. The hands must be thoroughly dry before applying. This will protect them all the time they are in the solutions, either developing or toning. After it is no longer required it may be dissolved off with a mixture of alcohol and ether, or sandsoap and a nail brush, leaving the hands white and stainless. For those who are poisoned easily by photo-chemicals this is a capital substitute for rubber gloves, which are always cumbersome and decidedly unhandy.—Camera Craft.

TO TRANSFER FILMS.

It often happens that a negative cracks so the film is not broken, and with a new glass under the film it would be just as good as ever. Put the negative in a tray containing one drachm of hydrofluoric acid in 10 ounces of water. Soon the edges will begin to pucker. Then the whole film raises without aid. Transfer to thin celluloid, face down. The thin celluloid, like rollable film in thickness, forms a good protection to the face, and a carbon can be printed from the back by single transfer. It is much more difficult to transfer to thin celluloid than to glass, for unless watched, and the clips changed, it will buckle and ruin the print. Immerse the celluloid under the film, draw both up carefully, and stretch out on a glass plate; then smooth down the emulsion on to the celluloid and clip the whole tightly to the glass. Use a coat of albumen first, on either glass or celluloid, to make the film stick. Slight enlargement may ensue, though not generally, if the plate had an alum bath.—Professional and Amateur Photographer.

A RECREATION CAMERA CLUB.

The suggestion by L. Goodrich, San Antonio, Tex., in September RECREATION, is a most excellent one. By all means let us have a RECREATION camera club, meeting every summer in some picturesque resort. Professional photographers have a convention yearly; why can not we have one? Hundreds of us would be delighted to meet kindred spirits a week or so each year. Let us choose a central point noted for its scenic beauty and hold our first convention next summer. We could no doubt obtain special railroad rates, and the expense of such a trip need not be great. We might arrange for lectures on photography by eminent amateurs. At any rate we could learn much by comparing pictures and talking them over. If Mr. Shields will have a button designed for our club, we will wear it as proudly as the L. A. S. men wear theirs. Flood RECREATION with letters on this subject, and we'll have a great time next summer.

Homer G. Gosney, Savanna, Ill.

INTENSIFICATION WITHOUT MERCURY OR CYANIDE.

Make up the following:

No. 1.—Potassium bromide.... 120 grains
Water .... 2 ounces
No. 2.—Sulphate of copper.... 240 grains
Water .... 2 ounces

Mix, and if necessary filter. Bleach the negative in the above solution; then give it a brief rinse, and redevelop the image in any developer except pyro-ammonia. Wash and dry. If preferred, the darkening may be produced by immersing the negative in a 5 per cent. solution of silver nitrate. Then refix and wash. The first method is simple, and will be found satisfactory in most cases.—Photographic Record, Manchester, England.

TO DETECT HYPO.

Pour into a deep tray a small quantity of the water or solution and throw in a few pieces of granulated zinc, after which add a few drops of hydrochloric acid. Place above the tray a filter paper wet with a solution of acetate of lead. If the least trace of hyposulphite remains in the solution, the paper will become brown, and afterward assume a black metallic appearance. This action is due to the formation of hydrogen sulphide, which escapes to the surface and colors the paper by forming lead sulphide. In this way it is always easy to determine when the washing is finished or to examine a solution suspected of containing hypo.—Photographer.

SNAP SHOTS.

I have a camera, 4 x 5, made by the Manhattan Optical Company. It has a double lens and the focal length is f8. To make a picture sharp to the corners I must use 16 stop and the sun must be shining bright. Exposure must not be longer than 1-5 of a second. Can I get a lens that will give the same results under the same circumstances by using a 4 stop?

L. H. Plummer, Chicago, Ill.

I have made thorough tests of the Nepera Chemical Company's new tablet developers called Lotol and find them excellent. They are cheap, uniform and give splendid results in every way. Those who do not care to be annoyed by using the M. Q. formulæ, and use prepared solutions, will find this a great convenience and saving while excellent results are attained.—*Exchange.*

SLEWFOOT AROSE IN FRONT OF US AND STOOD LIKE A STATUE.
(See page 90.)

RECREATION

Volume XVI. FEBRUARY, 1902. Number 2.

G. O. SHIELDS (COQUINA), Editor and Manager.

MY FIRST EXPERIENCE ON SNOWSHOES.

W. L. GRAVES.

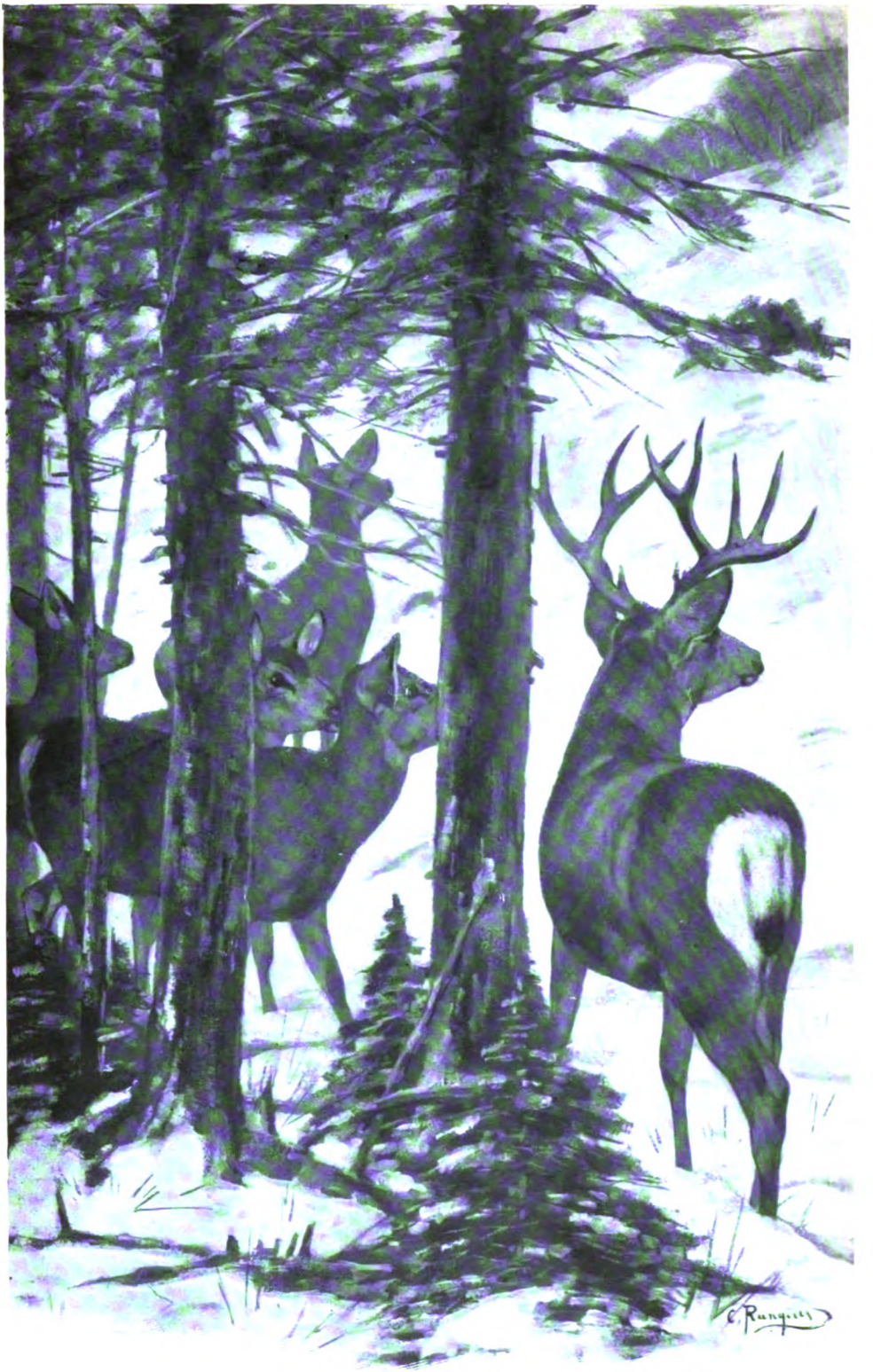
It looks easy to do, and, in fact, it is, after you know how; but it takes practice to go well on snowshoes, or *skis*, as we called them. My first experience was in Western Idaho in the winter of 1892. I was there on a visit to my brother, and being ardent sportsmen, we longed for a heavy fall of snow, so we could try our luck with blacktail deer. Thanksgiving morning we awoke to find 12 inches had fallen during the night, and it was still coming down in great flakes.

"Now for our hunt," said my brother. We put in most of the day getting ready. We had to go 10 miles in a boat and then pack everything on our backs 5 miles farther. Slush ice was running in the river, but it did not trouble us. We made the run down the river in 2 hours, tied our boat, and shouldered our packs. My brother had web snowshoes and got along very well, but I had none, expecting to use a pair of *skis* he had up at the cabin. I traveled a long 5 miles that day. The fall of snow had increased until it was over 2 feet deep, and my pack, which weighed 60 pounds when I left the boat, weighed 200 when we reached camp. When we got straightened out and had a bit of supper, I promptly turned in, for I was tired.

We were up early next morning and ready to start at sunrise. I put on the *skis*. They were good ones, well seasoned and light. I had received instructions from my brother how to use them. He slipped them on and made a little run around the camp to show me how to do it. We had our plans mapped out for each day's hunt. The first day we were to work West of camp. I was to go over the mountain while he was to go around, and we were to meet at the farther side. Anyone familiar with *skis* knows how hard it is for even a good snowshoer to climb a mountain, but I persevered, and after 2 hours of slipping and falling I stood on the crest.

While resting and getting my bearings, I heard rapid firing to the Southwest and I knew my brother had started a bunch of deer. I knew, too, that we should have venison for supper, as he seldom missed a shot. My surmises were correct. He stopped 3 deer before they got out of reach.

"Now," thought I, "if I want a hand in this business I must be moving." I knew the runway was around the foot of the mountain, and if I could get to it in time I should have a shot. There was a slight decline at first from the crest, free from brush, trees and rocks. I went down it like a race horse, but about half way down it suddenly grew steeper. I flew. No railroad train ever went so fast. I was scared, for down below me, near the foot of the mountain, I could see brush and trees. I knew that if I should run into a tree at the rate I was going there would not be enough of me left to hold an



I CAME OUT IN FULL VIEW OF ABOUT 20 MULE DEER.

inquest over. I had my guide pole, and I had been told that one must sit astride the pole to take the weight off his *skis.* I proceeded to put these instructions to the test. I began to slow up, but I ran over a big boulder, and when the guide pole slipped off, it threw me out of balance and started me on another course, while the snowshoes kept straight ahead. Of course we parted company. I went rolling and sliding down through the snow in every conceivable position, lost my gun and hat, and finally brought up in a small clump of brush about 100 yards from where I started to fall, but with no bones broken and only one or 2 little patches of hide gone from my face. I straightened up as quickly as I could, picked up my hat, and began a search for my gun, which had fallen quite a distance from the line of my glide. I dug down in the snow and soon brought it to light; then started on down toward the runway. It was not so easy, as I had not hunted up my *skis,* which had lodged in a clump of small brush a quarter of a mile away. I made fair time, however, and on turning a point of brush I came out in full view of about 20 mule deer. I determined to try a shot. Selecting a large buck, I fired, and had the satisfaction of seeing him fall. I went on down, dressed him and then hunted up my *skis.* Returning to my deer, I started around the trail, dragging him. I soon met my brother, who took hold with me, and we went back to where he had left his 3. We hung them all in a tree, out of reach of wolves, and went to camp, well pleased with our morning's work. After dinner we brought in our game on a toboggan.

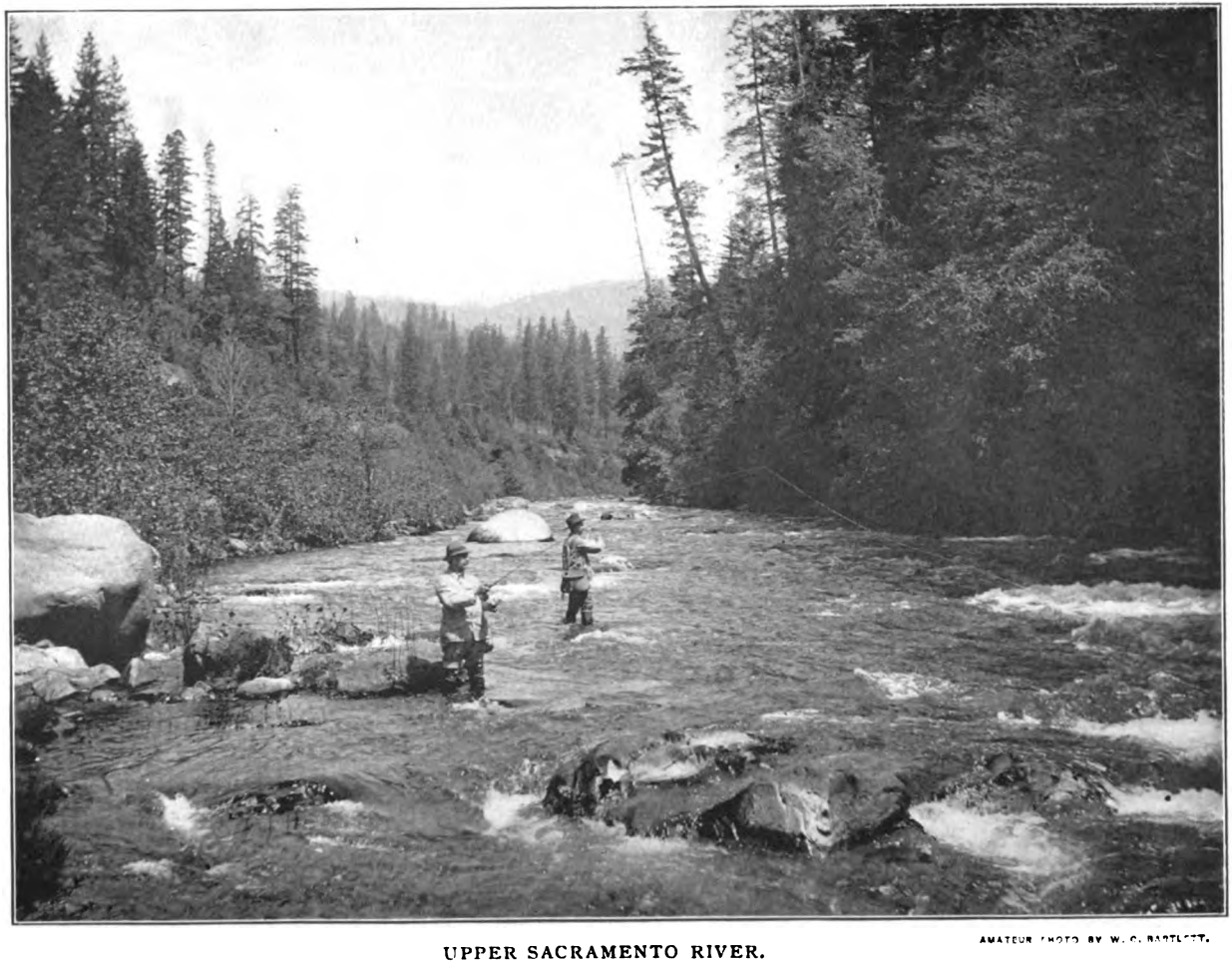
Next morning we skirted a small lake, going East. I had the web shoes and my brother wore the *skis;* but I got into trouble again. As I was crossing a ravine, I caught the toe of one web under a willow which had been bent over with the weight of snow. I turned a flipflop, or tried to, but my web hung on to the willow. Unlike the *skis,* which are loose on the feet, the web was tied hard and fast; so there I hung. After much squirming and twisting, I managed to get loose. Of course my gun was lost again, and I had an hour's search in the willows before I found it.

That day we got 2 deer, and the next day 2. My brother said that would make him enough meat for the winter. He liked to kill his meat just after the first fall of snow, as it was then in better condition than at a later time.

We made another toboggan and on the 2 we took all our deer to the river, loaded them in the boat and started for home. Then our work commenced, for the ice, which had been slush before, was in large cakes and frequently bumped against us, taking us back down the river at each bump; but by hard work we finally reached home.

I afterward became expert on both *skis* and webs, but I never forgot my first experience with them.

"This is a world of sorrow,"
"A shadowy vale of woe,"
And such frequent declarations
Are what help to make it so.
—Washington Star.



UPPER SACRAMENTO RIVER.

AMATEUR PHOTO BY W. C. BARTLETT.

COL. TAURUS.

J. W. BRADY.

He was my friend and I loved him. He was 4 years an inmate of my home, and he won and retained the affection of the family. During the winters of those years he was my constant and often sole companion in the pursuit of big game in South Florida wilds. We were both ardently devoted to field sports, and in the open season we spent weeks at a time together in the woods. I never saw his equal at stalking a deer, and he never tired of hunting. During the time he was with me I never heard his voice. In early youth he had contracted influenza, which, failing to kill him, bereft him of voice and the sense of smell. Happily his hearing and sight were not impaired, and he grew up with considerable intelligence.

He was different from all other mutes I have known in that his temper was amiable and his countenance was frank and pleasant. You looked in vain for that drawn, painful expression so common with mutes. His large brown eyes always returned your look with a smiling light, and he was everybody's friend. Having been brought up in the backwoods of Southern Florida, and his opportunities being further limited by his affliction, the Colonel had his prejudices. He had great contempt for all dogs, especially hunting dogs; he disliked swine, and detested colored people. His hearing was acute. I never had to speak twice to attract his attention, but I have heard my colored man, Steve Tatum, bawl at him at 40 paces without receiving the slightest recognition. The Colonel and I became acquainted through our mutual love of hunting. Before knowing him I rambled the woods day and night with a professional hunter named Kirkland, and many a buck and gobbler died by our rifles. Kirkland was a typical Florida cracker, but able to read and write and with more than ordinary intelligence. He had spent his whole life hunting. As was to be expected, he had his idiosyncrasies and superstitions. He was so fully convinced that a deer's eyes would not shine, that is, reflect a jack light, on the first night after a new moon that he would never go out on those nights no matter how much entreated. Neither, according to his theory, could deer be found the following day; so he stayed in camp 24 hours once a month. Another superstition of his was that venison would not spoil, no matter how unfavorable the weather, if you cut away and destroyed the particular part of the carcass indicated by the sign of the zodiac at that particular time. For instance, if the almanac showed the sign in the loin, the loin must go. But he knew all about game, its habits, where to look for it at different seasons, and how to approach it. Few deer that he saw escaped his rifle.

Lying around our camp fires at night in the solitude of the forest we talked of many things. One rainy night he told me about Taurus. It was a peculiar story, and, briefly stated, about as follows: One morning his wife saw a weak and emaciated little fellow looking wistfully through the fence of their cabin clearing and moaning in pain. She went out to him, and when through fear he tried to retreat, she leaped the fence, overtook and detained him. The waif was nearly dead from hunger and exposure and was covered with vermin. He was given food, a bath containing insecticide, and was put to bed. It was quite an episode in the cabin. The Kirklands had no neighbors, and where the little chap could have come from was a mystery. No one came to claim him, and as time passed Kirkland evolved the theory that the little fellow was of good family, had fallen, or been thrown from a tourist Pullman car, and had subsisted in the woods as best he could until chance led him to the cabin.

That winter was an inclement one, and before the waif's terror had worn off the exposure he had undergone brought on influenza and he came near dying, but finally recovered.

At first he had been dubbed Colonel, but later the name Taurus was added, after the zodiacal sign at the time of his appearance. Kirkland told me much of Colonel's ability as a hunter; how he could track a deer by sight better than a panther could by smell, and could by hearing locate turkeys in the high brush.

One day at the beginning of a close season I received a letter from Kirkland saying that as he could hunt no more until fall he was going to work in a distant part of the State. He requested me to give Taurus a home, urging that he would be a valuable hunting companion for me in the winter months and would give no trouble in the off season. After some reflection I consented.

Taurus came, and I was greatly surprised at his appearance. I had imagined a tall, lank, weazen-faced cracker, gibbering and making signs. He was, on the contrary, short, stout, deep chested, with full round face, fine eyes, and was the embodiment of good nature and geniality. With never

a word he walked right into our affections and made himself at home from the first.

I had been given to understand that his one accomplishment was hunting; so he lounged around the premises in idleness through the summer. He became popular with the town children and played with them in the street a great deal, but his play was rough at times, his humor seeming to lack a balance wheel. Occasionally he would throw himself against a boy with such force as to hurl him to the ground, and sometimes he took liberties with the girls that mussed their skirts and exposed more white than was seemly. These excesses seemed to spring from no evil design, but from the exuberance of an innocent, childish nature.

If his tomboy capers were rebuked he would instantly retire to the front veranda and sit on the steps in a contrite attitude the remainder of the evening.

He was suspicious, and nothing escaped his sight. If a stranger came on the lot he watched him continually, and would openly follow any negro, clearly evincing his opinion of the dishonesty of the race. Two things invariably made his angry, tramps and skunks. He drove the former off the premises, and in hunting he annoyed me by always stopping to kill any luckless skunk the trail led us on. He did this feat deftly, too. I never saw him get perfumed by a skunk but once, and as my remonstrances had been in vain I was secretly gratified at his mishap.

As the hunting season approached he became restless, and when at last we were off he seemed beside himself with joy. He loved the solitude of the forest, the chase and the cheery camp fire under the pines by the lakeside.

In our rambles I talked to him a great deal and he answered by signs and glances. He never carried a gun. He had learned the art of trailing a deer by his sight while living with Kirkland, and he seemed to consider that his only part of the work and the sport. It was marvellous how well he did it. I watched him a long time trying to learn his method, but I never got beyond the patent fact that he looked not close under foot for the track, but 20 or 30 feet ahead. He knew a fresh trail from an old one instantly. On the open sand hills this was something that always puzzled me. In good weather a track 24 hours old and one 3 hours old were alike to me, but not so to him. He never made a mistake in that respect. When we struck a fresh trail he took the lead and I walked a few steps behind. If the trail led across rough ground where grass, leaves or pine needles were thick I sometimes had to wait for him a little, but he always, or nearly always, lifted the trail across, and he knew intuitively when we were approaching the bunch of palmetto or bush clump where the quarry lay concealed.

Sometimes we would follow the trail of a buck only to have me empty a magazine without effect; this did not annoy Colonel so much as it did me. He would calmly start off across country to find another track.

One season we found a hard problem in the spoor of a large buck, distinctly marked. The outer section of the rear right foot turned outward, and this made that buck's track easy to distinguish from all others. We got on it several times, and after following it long distances it would seemingly disappear from the face of the earth. Wide circuits over soft ground would not raise it again. Once we lost the trail on an open sandy hillside where it should have been plain. While waiting for Taurus to puzzle it out I happened to raise my eyes to the crest of the hill, 500 yards away, and there stood, outlined against the horizon, the most magnificent buck I have ever seen. His majestic head and antlers were beautifully poised, and he was looking down the slope at us in apparent disdain. I called Taurus's attention to him. While we stood foiled but admiring, the buck sprang gracefully over the crest and disappeared. We went on to the top and viewed the track. It was the same one we had been trailing.

Other hunters had followed that marked trail. My brother-in-law, Moore, had seen the track and followed it many hours at a time. He and Taurus and I quit other tracks when we found this. We named the buck Slewfoot. He was so elusive that after a season or 2 others stopped hunting him and followed less cunning quarry. Indeed some hunters began to believe that Slewfoot was a phantom buck. He was frequently seen, but always under such circumstances that he escaped. One time as Moore, Taurus and I were driving into camp on the North end of Crooked lake, our rifles in their cases under the wagon seat, Slewfoot arose in front of us and stood like a statue. (See Frontispiece). There was a desperate clutching at the gun cases, but before we were ready the buck ran slowly and gracefully over the hill and away. The most tantalizing part of it was that he passed in an oblique course within 30 yards of the wagon. His eyes and the poise of his head denoted defiance rather than fear, and the stateliness of his motion negatived the idea that he was running from us. Moore was livid with vexation, and I felt my heart beating in my throat. Taurus was sitting in the rear part of the wagon when I turned to look at him. His attitude plainly said that the poor mute, usually so gay and frolicsome, was now dominated by fear. After a moment I understood it. The fre-

quent unexpected appearance of the buck, always at inopportune times, had at last converted Taurus to the belief that the animal was a phantom. Moore and I exchanged a knowing smile, and I think each of us registered a silent vow that our mute friend should yet assist at the funeral services of Slewfoot.

Three hours later we coaxed Taurus to take up the trail for us, hoping we would catch the buck napping some miles away, but several hours' weary marching brought us to a dense swamp several miles wide, where we gave it up. Although we were successful in bagging less desirable game we saw no more of Slewfoot on that trip

The desire to kill that particular buck now became a passion with Moore and me. And so fearful was each that the other would get him we used to run away from each other to hunt him alone.

I felt that I had the advantage in having Taurus. He would not have gone with Moore without me.

Toward the close of one season Moore slipped out alone for 3 days in the vain hope of catching the charmed buck off his guard. When he came in he gave me an account of the trip in the presence of Taurus. He said that twice while gliding about with eyes alert he had turned to find Slewfoot gazing at him from the top of a hill in the rear. Another time he had a point blank aim, when the gun snapped and the noise betrayed him.

Taurus looked wise, but whether in the belief that the deer was a phantom and therefore protected, or from something else, he could not tell us.

But when Moore was gone a thought came to me. In all probability the buck saw more of Moore than the hunter had seen of him, and had perhaps seen him drive off for home. Now he would expect a season of rest and would be less guarded in his rambles. Therefore it was a good time to kill him. So Taurus and I went, secretly, as Moore had done. We found Slewfoot's trail without difficulty. What was more, we found Slewfoot himself. He was walking up the side of an open hill among the pines, apparently unconcerned. Taurus trembled perceptibly. I opened up at 75 yards with a 38-55 and felt sure he was my meat. Long before he was out of range I had emptied the magazine. At the last shot the buck stopped, whirled around, gazed down the hillside at us a few seconds and then galloped off.

Taurus threw himself on the ground without the least manifestation of surprise or annoyance. I was angry and said things.

The next season when we went out we did not search for Slewfoot's trail. When Taurus would pass it over and give preference to another both Moore and I would pretend not to notice. One time Moore was coming into camp by moonlight from a turkey roost and surprised Slewfoot on a knoll within 100 yards of the camp fire. On that occasion Moore carried a shot gun, and although he pulled both triggers and his buck shot tore the foliage in line, the buck galloped off. That clear miss at 40 yards fixed Moore; he went over to the "phantom" party.

Taurus and I had many happy days and nights together around Crooked lake that season, but did not waste any more time looking after Slewfoot. Sometimes we saw his track alone, sometimes with a herd. Occasionally we heard that some other hunter had emptied a magazine at Slewfoot without effect, and that always made us feel better.

In the fourth season Moore and I had great sport. Emboldened by the possession of several pairs of fine antlers we began hankering again after Slewfoot. It seemed Taurus was similarly affected. He began to follow up the trail with avidity, and we got the phantom in 2 or 3 close places. One time he made so much noise in getting into a swamp his materiality was abundantly apparent; but his usual luck attended him and we came out without him.

One evening while the full moon was rising Taurus and I sat on the piazza. There were but 2 more days before the close season would stop our fun. Taurus was watching the smoke curl from my pipe.

"Taurus," I said, "let's drive out to Crooked lake to-night and kill Slewfoot to-morrow." He sprang off the veranda far out toward the gate in glee at the proposition.

In 10 minutes, with Steve Tatum driving, we were on the way; at midnight we were in camp. Next morning Taurus and I found the trail. We followed it with the dogged persistency of Indians. It went everywhere, sometimes in swamp, sometimes in oak hummocks, but mostly in the high, open pine hills amid the small deep lakes. At noon we were still tramping; at 2 we were tired; at 4 nearly worn out with the long strain; at 5 we found him. Taurus was staggering and his eyes were watery with fatigue; the strain had been terrific. We followed the cunning old buck all day only to find him back at the big lake, lying in a patch of palmetto on a narrow point of land near our camp.

The lake was miles wide, and we had him cornered. I was sure he was there, for the trail led in and had not come out. We had approached quietly and Slewfoot was probably asleep. I motioned Taurus to go around and enter the palmetto from the opposite side.

He hesitated. He seemed weary, and I thought I saw that same fear in his eyes I had noticed before; but I did not mean to lose Slewfoot then. With some temper manifest in face and gesture I motioned Taurus to go in and force the buck out. He turned and was gone. I took my stand at the best place, facing to catch the light from the setting sun on the rifle sights. In a moment I heard Taurus leap into the palmetto with a great noise, and instantly the startled buck sprang up and came on to his death. I held my fire until he was within 30 feet and broadside on. The bullet crashed through his body and he fell.

I ran forward. The buck sprang up and bore down on me. I threw in another cartridge while stepping backward, and as I did so was tripped by a loop of grape vine and fell prone on my back, the cartridge exploding overhead. The buck charged, but the same vine that tripped me caught in his horns and swung him upward and outward from me. He disentangled his antlers and again charged, as I was getting to my feet.

Taurus came up with a great rush. He threw himself directly between the buck and me, and caught him by the neck. Quick as thought the animal tossed Taurus high in air and he fell at the base of a large pine. In a second the infuriated deer was upon him. I fired and the bullet went through Slewfoot's heart, but it was a half second too late. His horns went through and through the prostrate form of my friend, bending his body like a hoop around the base of the tree. There was a wide opening of the Colonel's eyes, a shiver, and he was dead.

Steve Tatum came from camp at my call, and we considered what we should do. It was 30 miles home and night was coming on. It was preposterous to think of hauling the mangled body of Taurus 30 miles in a hunting wagon. When the full moon was high and no sound was heard save the hooting of owls, Steve and I dug a grave with an axe and a board, and by tearing up our 2 camp chests made a box long enough for a rude coffin. In this we placed the body of my silent friend, and as we looked at him for the last time we did not try to suppress our tears.

He rests out there now on the highest sand ridge at the North end of Crooked lake. From his grave you can see the water glinting for miles to the Southward. It is a pretty place, but solemnly lonely, and perhaps Slewfoot's progeny browse at night near the grave of my friend.

I do not hunt much now, but I go out to Crooked lake in the heated term to rusticate, and, if the truth must be told, to be near Colonel Taurus. On one of my recent trips I carried a marble slab that now stands at his head as a testimonial of my regard. On it one reads:

Hic jacet,
COLONEL TAURUS,

Who died down yonder
where the antlers are nailed
to the pine, that I, whom he
loved, might live.
Like Byron, the cynic, I erect
this stone to the memory
of my Best Friend,

A DOG.

The ornithorhyncus went over the hill
To view the remains of a pterodactyl.
"A queer bird was Terry,
A funny one, very";
Said the ornithoryncus a-scratching his bill.
—Carolyn Wells, in Judge.

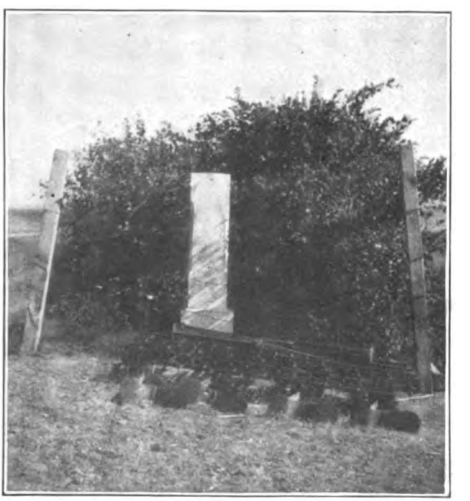
HUNTING FOR A PLACE TO HUNT.

H. H. TODD.

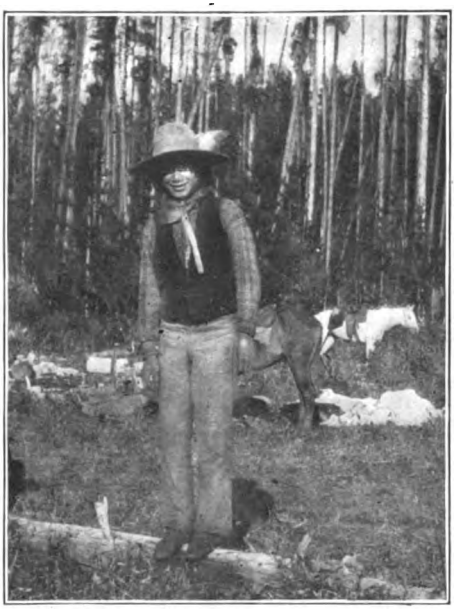
Our quartette had hunted together each season until it became natural to ask, "Where shall we go next fall?" During the spring of '99 we planned a grand trip to Idaho. How careful were our preparations! We wrote to all parts of the State, and after culling out the answers thought we had struck a nugget. Three of us left New York September 4, on one of the luxurious trains of the New York Central. The views along our beautiful Hudson, the Mohawk valley, and the prosperous farms and cities of Western New York, and of Ohio and Indiana, passed in quick succession, and in a few hours we were in the great city of the middle West, Chicago. From there to Omaha by night shows the progressiveness of the Chicago, Milwaukee & St. Paul Railway, with sleepers equipped with electricity and in each berth a separate lamp. From Omaha by the Overland Limited found us in a luxurious hotel on wheels. Its dining service can not be excelled, while the combination car, with its library, periodicals, writing facilities, its barber shop, bath, and café, to say nothing of its comfortable armchairs, leaves little to be wished for. The scenery is grand and the changes rapid, flying past the great cornfields of Nebraska,. W. F. Cody's ranch, and reaching the foot hills of the Rockies, where with an extra engine the ascent begins. At the different stations the 4 and 6 horse stages wait for the mail, which reminds of bygone days, when they were the only means of transportation across the plains. The buttes of the Green River valley look as though they had been placed there to fortify the town.

At Granger we took the Oregon Short Line, to find many similar scenes, together with the fertile valleys and prosperous farms of Southern Idaho. At Diamondville the track runs over the opening of a coal mine, and the sidings are filled with modern 50-ton steel cars loaded with black diamonds awaiting shipment. Thrift and progress are on every hand. Passing through Oregon and Washington, we took the steamer at Riparia for Lewiston, and that is a delightful sail, with its many turns, and steep cliffs on either side. The

GREEN RIVER, WYOMING.



MONUMENT TO LIEUT. FOSTER, U. S. A., COTTONWOOD, IDAHO.
(Killed in Nez Perce War.)



NEZ PERCE INDIAN BOY AND HIS CAYUSE.

trip seemed short, and we were sorry when we reached the end. From Lewiston to Grangeville, 74 miles by stage, was novel, but a little tiresome, although a large part of it was through historic ground, passing over the battlefield of the Nez Perce Indians, with the monument erected to Lieut. Foster standing in the middle of the stage road down Cottonwood hill. Crossing Camas prairie we reached the town of Grangeville, Idaho, made famous by the gold strikes at Buffalo Hump. There we met our guide, M. A. Bates. He assured us that we would reach the Chamberlain basin in about 4 days, but when we looked at the outfit he had provided we doubted it, for another such lot of crow baits it would be hard to get together! Gaunt, sore, and worn out, they seemed hardly able to get around; but Bates assured us it was their nature, and that they were in good condition for the trip, so off we started, at 4 P. M. Monday, camping about 10 miles out.

The next morning we were awakened by a lot of Nez Perce squaws and children, who had been after huckleberries and were homeward bound. It was a novel sight to see the squaws straddling the horses, with the papooses strung on behind and before, and we tried to take a photograph, but with poor success, as the Indians are very superstitious. One lad of 14, after much persuasion, allowed us to snap him.

That day we made about 30 miles. We reached Adams' camp at noon, and had an experience we will all remember. We were passing through a stretch of burnt timber when a wind storm struck us that felled the trees in all directions. Close by us they would crack and tumble with a roar that was anything but pleasant, so we were glad when we reached the clearing, and could listen to the cannonading from a distance. That night we stayed at Boulder Creek.

WARRENS, IDAHO.

FORDING THE SALMON RIVER.

The third day we passed through the old mining town of Florence, out of which it is claimed over 50 millions of dollars have been taken, and nightfall found us at the State bridge on the Salmon river, ready to take a well earned rest. The fourth day we used up in climbing the 14-mile hill, from the Salmon river to the hot springs, where we stayed over night to get a bath in water that came out of the earth at over 100 degrees. The fifth day found us at Warrens, which is a thriving mining town, where many pack outfits start from. All around it the ground has been worked with placer mines, until the whole valley looks like the seashore, with the sand piled up in drifts. The Chinese still work the old diggings, making small wages.

At that time our troubles began to thicken. As we had thought, our horses were used up, and we were apparently as far from our hunting ground as when we started. After a conference we demanded of Bates a new outfit; also to know whether he knew where he was going. He admitted that he did not know the country very well, and finally consented to hire an extra guide, and get some new horses; so on the sixth day we started with new hopes, fording the South fork of the Salmon river about noon. The river was waist deep, with a swift current, and many round boulders on the bottom, so we had to be cautious as we rode across, but made it without mishap, and camped for the night about 5 miles beyond, on Elk creek. The seventh day we had a rather rough trail, lost one horse in the woods by not picketing him, and another, which was completely fagged out, we had to leave behind. We had seen no game since we started, and we began to think we were up against it. That afternoon we crossed a high ridge, from which we could see the Bitter Root range, 60 miles away, and camped on Smith's creek, reaching there about 8.30 P. M.

The 8th day we were positively assured that we would be in the basin in 2 days, but with past experiences, we took the statement with salt. However, we started early, leaving the pack to follow, and reached Mosquito Springs, where we found the coldest water I have ever had the pleasure of drinking. About dusk, Bates came hurrying along, leading a pack horse, and gave us the pleasant information that most of the pack horses were lost, so they would not reach us that night. You can imagine how we enjoyed that. Eight days out, no sign of game, with worse prospects, and our outfit lost! That was indeed a pleasant outlook; but we dined on what we had and spread our blankets for a sleep.

The next day, of course, we had to wait for the packs to reach us. We fell in with a scout and prospector, known as the Yellowstone Kid, whose outfit consisted of 2 jacks and a dog. He had killed a bear, so we had our first fresh meat. While waiting, we hired him to take us out, and came back in the evening with one black-tail deer, which was the only animal shot on the trip. About sundown our outfit arrived, minus one more horse and part of the pack, including my boots, which, being wet, had been thrown over the pack to dry.

We engaged the Kid for a week, and on the 10th day we reached Ramie Meadows, where we expected to find game, but, like

COL. R. E. MOSS, AND THE BEAR HE DIDN'T GET.

ON TOP OF THE BITTER ROOT RANGE.

the rainbow, it was not there, as we found after diligent search. The evening of the 11th day, we held a council of war, and were inclined to quit, but decided to give the guides one more chance, and on the 13th day we arrived in the Chamberlain basin, which we were to have reached in 4. We made camp about 4 P. M., and Billy insisted on going out to find some fresh trails to work on in the morning. Night came, but no Billy. In the morning, after we had eaten breakfast, along came Billy, sidling into camp. In answer to questions, he said he had gone farther than he thought, so made a fire and went to sleep. He had not seen any game, but came on a very hot trail in the middle of the night, and when he turned around, the seat of his trousers told the rest.

We hunted there faithfully 2 days, without seeing a hair, and then, as our time was limited, and our spirits down to zero, we started for home. We had many experiences, such as a dry camp and no water for 24 hours, but not a sign of game. Finally we reached Grangeville, 3 weeks out, having seen only one deer on the whole trip and a bear cub, tied to a post in one of the back yards of Grangeville.

I would not have you think from this that there is no game in Idaho. There is plenty of it, but you must get the right guide to take you to it, or at least one who knows the country over which he travels, which our guide did not. Of course we came home much disappointed as to trophies, but we had obtained a wealth of experience. We had had healthy exercise, rough, plain fare, and the climate, which would alone repay for the trip. We had enjoyed the grandeur of the scenery in the mountains, as our horses wound their way along the narrow trail, with the river many hundred feet below, and again as we stood on some peak, and through the clear atmosphere saw ridge after ridge of mountains in the far distance, with beautiful lakes nestling down in the valleys. We felt fully repaid. It was with deep regret that we started on our homeward journey. The small animal life, the grouse shooting and the trout fishing, added no small part to our enjoyment; so that after counting up both sides we felt that, after all, we had a good time. As to game, we were no hogs any way, for as members of L. A. S. we can get lots of enjoyment out of a trip without slaughter.

"Good mawnin', pahson, what kin we do foh you?"

"Oh, I'se jest makin' a pastoral call."

"Well, goodness me! Den I'll go right out an' kill a chicken."—Indianapolis News.

AMATEUR PHOTO BY H. S. WALKER, JR.

VIRGINIA DEER.

Winner of **Special Prize**, offered for best photograph of a live wild animal; RECREATION'S 6th Annual Photo Competition.

AMATEUR PHOTO BY H. G. HIGBEE.

FLY FISHING.

Winner of 3rd Prize in RECREATION'S 6th Annual Photo Competition. Made with Pony Premo Camera, Lovell Plate and printed on Velox paper.

THE FARMER'S PETITION

A. L. VERMILYA.

Now the autumn days are with us, and the hunter's got his gun
Sighted fine for every object from a grizzly to a bun;
And we farmers have been humping to devise some kind of plan,
So that when the season's over we'll still have the form of man,
'Stead of being mossback angels, wobbling lonesome in the skies,
Wearing overalls and whiskers and a look of pained surprise.
For the blithesome city sportsman is a most peculiar cuss;
He will shoot a feller's head off, and then say, "Glad it is no wuss."
He will shoot with all the rashness that at home he shoots the chutes,
And he'll fill us full of bullets from our scalp-lock to our boots;
But it's really quite annoying, when the hunting season's gone,
To go limping round on crutches, with our features kinder drawn
And our systems out of kilter, having most too many holes,
Which let in the chilly weather onto our immortal souls.
So we've got up a petition—listen, sportsmen, here it is—
It's a very mild production, and the reading runs like this:
"We, the farmers of the backwoods, most respectfully do pray
That you hunter chaps won't shoot us when we happen in your way.
And believe us, we are sorry—mighty sorry—that we're here
Just when all you city fellers want to shoot the moose and deer;
But you see our farms are scattered round the country hereabout,
And 'twould seem most awful cruel for to drive us farmers out,
Course, we know we look like 'critters,' from our trousers to our hair,
'Cause you say, whene'er you shoot us 'Thought it was a deer or bear!'
But we can't help looking wildish, living careless-like and loose,
And a second glance would tell you that a farmer ain't a moose.
Shoot our chickens and our turkeys; shoot our horses and our calves;
Shoot the atmosphere and landscape into quarters, thirds and halves;
Shoot the sheep within the pasture; shoot the piglet in the pen;
Shoot the cows around the straw-stack; shoot our oxen now and then;
But while all the game you're shooting—everything both low and high—
We do beg most blamed respectful that you'll kindly pass us by.
For a bullet in the liver or a buckshot in the back
Is most cussed inconvenient, and it puts us out of whack.
We ain't what you might call anxious to get riddled like a sieve,
For, you see, it's kinder nat'ral for us chaps to want to live;
Therefore, if you come a-hunting while the autumn breezes blow,
Though you shoot up all our live stock, let the busy farmer go."

Mother—What! Have you been fighting again, Johnnie? Good little boys don't fight.

Johnnie—Yes, I know that. I thought he was a good little boy, but after I hit him once I found he wasn't.—Somerville Journal.

HUNTING IN THE BAKER RANGE.

T. C. AUSTIN.

The ever restless spirit of the pioneers of the Northwest is like the tide of the ocean, beating and throbbing against the rocky shores in its effort to escape its imprisonment. The old hunters and trappers of the Hudson Bay Company first opened the pathway to Puget sound, disclosing a field of adventure which several generations have been unable to entirely subdue. It is only within the past few years that the mountain fastnesses surrounding this great body of water have been explored and the leaves of Nature's book opened to the hungry eyes of the naturalist.

The Baker range of mountains was, until the summer of 1886, an unwritten page, never having been trodden by the foot of civilized man. During the early part of that year gold was discovered on the Similkameen river, one of the tributaries of the Columbia, East of the Cascades. The gold seekers were compelled to make a long, circuitous route, through British Columbia, in order to reach the new El Dorado, and the fact that they were required to pay tribute to their British cousins was exceedingly disagreeable to them. An effort was accordingly made to pierce the then unexplored Baker range, thus securing a trail altogether on American soil.

Accordingly, on the 12th of July, 1886, a party, consisting of William Powell, an old '49er; Professor J. Y. Collins, an enthusiastic naturalist; Banning Austin, an experienced civil engineer, thorough woodsman and experience hunter; T. H. Dehaven, Samuel Belford and David Meyers, all hardy men, left Bellingham bay for the purpose of making the necessary exploration.

Each man carried on his back a pack weighing about 60 pounds. This included rations for 2 weeks, which they supposed would be ample time in which to reach the mining camp.

The first few days of their journey were uneventful other than that they were amazed by swarms of mosquitoes in the valleys. On the morning of the 16th, while traveling in the valley of the North fork of the Nooksack river, they came in view of the great glacier of Mount Baker, about 10 miles away. The sun was shining on the face of the crater, in which the glacier is formed, showing thousands of feet of ice and snow, over which danced every color of the rainbow. Added to this, the noise of the rocks and ice, tumbling from their lofty heights, made the scene grand and awe inspiring in the extreme.

The country over which the men had passed was an interminable jungle of fallen timber and underbrush, and as they approached the mountains, new difficulties were encountered. Immense canyons blocked the way, while the streams which they were compelled to cross were ice cold, being fed by the snows on the mountains. These streams they found full of trout, which partially repaid the travelers for the suffering encountered in crossing them.

The next morning the journey was renewed, all the party being in good spirits. Now and then they halted to regale themselves with the wild huckleberries covering the mountain sides. During one of the pauses Powell, who was slightly in advance, shouted for Austin, who carried the only gun, that he had routed a bear. Hastening forward, Austin discovered a black bear cub ensconced in a fir tree about 100 feet from the ground. A single shot disposed of it and furnished the party with the first fresh meat they had had since starting. That night they camped at the foot of a red butte, which they named Baldy.

Four of the party ascended this mountain the following day, in order to obtain a view of the surrounding country. On reaching the summit Austin looked down the mountain side, and, about 1,000 feet below, discovered 2 mountain goats slowly working their way toward where he was standing. Onward they came, slowly but surely, passing the edge of an immense precipice, over the dizzy heights of which one misstep would have hurled them on the rocks several thousand feet below. The hunter at once began working his way toward the unsuspecting animals, and succeeded in getting within about 200 yards when he opened fire. The first shot missed, but the second took effect, when over the goat went, falling at least 100 feet before striking. It dragged itself about 1,000 feet farther, to a large bank of snow, and gave up the ghost. The action of its companion was indeed pitiable. Glancing down the mountain to where its mate lay, it made its way down by a different route and lay down by its side. The dead goat was easily secured, and the meat formed a welcome change for the prospectors. Professor Collins preserved the head and horns, carrying them all through the toilsome journey.

The party proceeded to the Northeast side of the mountain, and as the atmosphere was extremely smoky, decided to again ascend and then try to make ob-

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servations. On the morning of the 20th the ascent was made. The smoke hung low in the valleys, and therefore did not interfere materially with their view. The scenery was most beautiful. To the North and East they could count over 100 peaks; while vast fields of snow extended North as far as the eye could reach. At intervals could be heard the roar of an avalanche, as some great bank of snow broke from its moorings and started downward on its journey of destruction.

The camp was on the head of a small stream. It was decided to follow down that, and on the morning of the 22d the men arrived at the Chilaweyak. The course they had marked out took up this stream, and undauntedly they again turned toward the region of perpetual snow, through interminable intricacies of fallen timber and underbrush.

The provisions were beginning to run low, and no game had been seen since the goat was killed. On the 26th it rained all day, and all hands remained in camp, rolled up in their blankets, until the gnawings of hunger drove them out.

Starvation then began to stare them in the face. The allotment was one biscuit a day each to each man, with such berries as they could find. The fearfully hard work of tramping over the rough country they had encountered, together with the lack of provisions, began to tell on them, especially on the old members of the party.

By almost superhuman exertion they reached a point, on the night of the 27th, where they could see the head of the stream they were following. The next day they turned more to North, determined to get above the jungles and nearer to snow line, with the hope of securing meat of some kind.

Owing to the extreme weakness of some of the men, camp was pitched at 3 o'clock, while Austin took his rifle and went on up the mountain in search of game. He traveled but a short distance when he saw 7 goats standing on a cliff of snow and ice looking at him. He stepped behind a rock for the purpose of stalking them, when the whole band wheeled and disappeared.

He then started toward the summit and had gone but a few hundred feet when, looking to his left, he saw a fine buck within easy range standing on a cliff of rock. Never in his life had he been so anxious to make a sure shot as then. Carefully he rested his rifle on a cake of ice and pressed the trigger. At the report the goat tumbled over the cliff and out of sight into one of the rifts of the glacier. As Austin attempted to extract the shell it stuck fast, and as he was tugging at the lever 6 more goats came picking their way down the ridge on which he was standing, passing within 30 feet of him.

He broke every blade from his knife, but to no purpose, and was compelled to watch the animals pass out of sight. Then he returned to camp to give the sad news to his comrades. As he entered the camp his white face startled his companions, and Professor Collins hastened to ask,

"What is the matter, Banning? Have you seen a ghost?"

"No," he replied; "worse than that. I have been within 30 feet of 6 goats and did not get one of them."

For a time the men were almost stupefied. That shell must be removed or they must starve. They commenced to work more carefully than ever before. The gun was taken apart, piece by piece, and the barrel heated. To their delight, the shell dropped out, and general rejoicing took the place of despair. The rifle was then put together and greased with a piece of bacon rind, all they had left.

The next morning it was raining quite hard, but meat must be had; so the gun was tried, found to be all right, and Austin, accompanied by Dehaven and Belford, with their pack straps, started up the mountain. After a climb of 3 hours they got above the clouds. While walking along the summit 4 goats were discovered on a ledge, some distance below; 2 old ones and 2 kids.

Belford and Dehaven remained on the summit while Austin went in pursuit of the quarry. He soon got within range, and the first shot killed one of the old goats, but she fell into the canyon below, out of sight. The next shot knocked the other over, and after falling and rolling down the mountain, several hundred feet, she also disappeared over the same frightful precipice.

The little ones were next attended to. One of them went after the dams, but the other was finally secured, after a perilous climb, by Austin and Dehaven, of fully 1,000 feet.

The hunters then returned to the camp highly elated but extremely tired and hungry, having gone the entire day, the most perilous of the journey, on their one biscuit each. They arrived late, but soon recovered their spirits while enjoying broiled goat meat, and shortly rolled up in their blankets to dream of home.

During the night the fire burned low, when 2 of the men got up to replenish it and saw the most beautiful sight they had ever beheld. They described it as follows:

"The clouds had settled below us and the moon had arisen full and beautiful. It shone down on the clouds, making them look, as they wound down the different valleys, like gigantic snow white robes, while about the camp, in all directions, arose lofty peaks, which seemed to pierce

the heavens. Occasionally a bright streak of light would dart through the snow white fleece, to be followed immediately by a heavy roll of thunder, seemingly shaking the mountains to their foundations.

"On an immense glacier to the Southeast the moon's rays fell full and bright, making the great wall of ice reflect all the colors of the rainbow. Now and then a great mass of ice and snow would go crashing into the depths below, the jar of which, coupled with the thunder, brought to mind the vision of Faust on the summit of the Brocken."

The next day the journey was resumed. Occasionally the party would come to a small park, of 8 or 10 acres, in which grass was growing luxuriantly, while bees were humming and several varieties of song birds sent forth their music, making a pleasing contrast to the desolate country through which the men had previously passed.

Two white ptarmigan were killed, during the day, and were added to Professor Collins' collection. Several bands of goats were seen, but none killed. Camp was made early, and the next morning Austin and Collins started for the summit of the mountain on a hunt, as the meat secured the day before was all gone.

Shortly after reaching the summit 7 goats were seen in one band, standing on the edge of a deep canyon. Collins concealed himself, while Austin went to the head of the draw on which they were standing. Austin soon reached the desired point, when Collins showed himself to the suspicious animals. The band divided, 4 going up the draw while the others followed around the canyon on the snow. The first 4 came within 50 yards of the hunter, who opened fire, killing 2 with the first 2 shots. One of the goats rolled into a crevice in the snow, while the other tumbled down the mountain side fully 2,000 feet, lodging against a big boulder. A third shot broke the leg of another goat. The rifle spoke again, when the animal ran a short distance and fell dead.

Austin followed the fourth to the edge of the snow, getting within about 200 yards of it, and by a fortunate shot laid it dead in its tracks.

Three of the goats were carried into camp and were estimated to weigh 200 to 250 pounds each. The next morning the fourth one was secured, and proved fully as large as any of the others. The party was thus well supplied with meat, and remained in camp 3 days jerking goat meat for the remainder of the journey. They christened this Goat Camp.

On August 2d the men started for a large lake, which they could see, about 6 miles to the North, and which they reached during the following morning. On the 4th they continued their journey along the East shore of the lake, and about 9 o'clock came on the ruins of an Indian camp, which had probably been used many years before, while hunting in the surrounding mountains.

A short distance farther they came to a glacier stream, and while deliberating on the course to take discovered a grave in one of the most desolate and dismal spots imaginable. A cedar tree near bore the following inscription:

"Sacred to the memory of Michael Brown, a native of Galway, Ireland. Drowned in Chilaweyak lake, October 10th, 1858. Member of the 9th U. S. Infantry. Found June 18, 1859, and buried by his comrades. Age, 26 years."

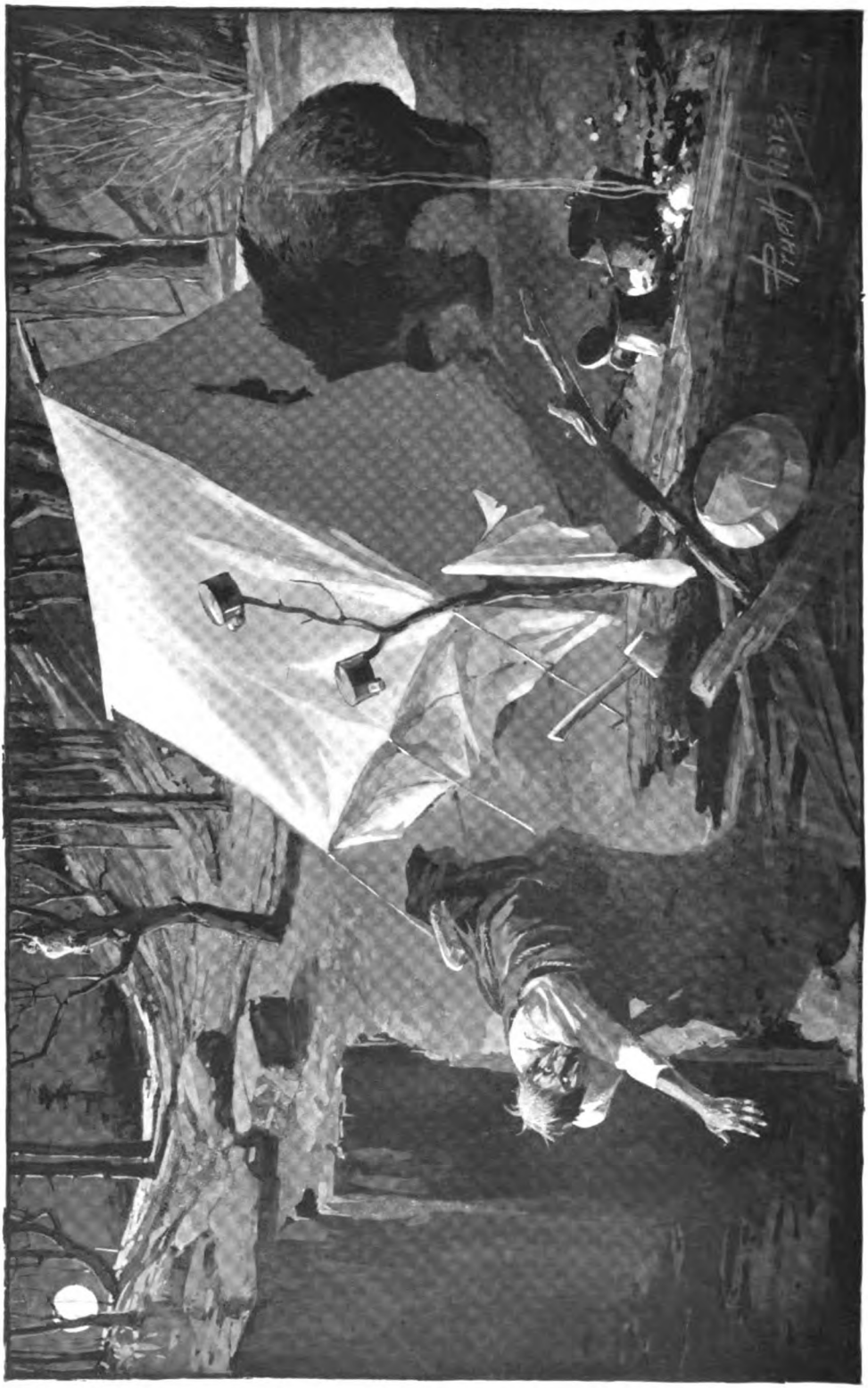
The present party were probably the first white men to visit this grave since the burial of the soldier, a quarter of a century before.

A two hours' march up this glacier stream took them to the old U. S. boundary survey of 1858, which had been cut 15 feet wide through the wilderness, but was grown up with underbrush. That was virtually the end of their adventures and sufferings, although they had to travel 3 days more over country similar to that through which they had passed, before reaching Cowley's ranch on the Fort Hope trail, where they procured their first square meal since leaving Puget sound.

"Well, if you haven't still got that red vest!" exclaimed the jay bird, when he met the robin.

"They are still the proper thing," answered the robin; "at least, the jays have not taken to them yet."

The early worm here putting in an appearance, society chit-chat was laid aside for the practice of benevolent assimilation.—Indianapolis Press.



I FLOPPED AND ROLLED WITH ALL THE ENERGY OF DEADLY FRIGHT.

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AN UNINVITED GUEST.

STANLEY WATERLOO.

We were out after grizzly, Tom Long and I, and we intended to have 2 at least, for each wanted a skin to exhibit in future years as undeniable evidence of his prowess. It was to secure these trophies that we had come from the East to Montana, armed with expensive and deadly rifles and with ammunition enough to carry on a general engagement with a whole drove of bears should occasion arise. We had secured the services of the best guide to be had, an old hunter named Jim Holden, and we were on the hills in late October and in a region where, we were assured by Jim, we should find bear. We had already seen a black one, and had blazed away at it as it disappeared in the scrub, but without apparent effect.

We had set up our tent close to the edge of a slight bluff descending perpendicularly about 15 feet, at the foot of which was a hollow where water had gathered over an area of perhaps an acre. Considerable vegetation surrounded this miniature lake, though the water, at the time of our visit, was not more than 2 feet in depth at its deepest place, which was close to the little bluff. The lake, or rather pond, was a decided convenience to us, and we camped close to the bluff with regard to ease in letting down a pail to get water for cooking purposes. We were there to stay until we found bear. We were supplied to the queen's taste; a native of the valley, with 2 burros, having brought up our traps and much canned food and then departed.

Supper was over, our pipes were lit, and Tom and I talked wisely and well of bear. We hadn't talked of anything else for days. We talked of means and methods and of what we would do in an emergency. I noticed that old Jim smiled occasionally as he listened, but any contempt, covert or expressed, on Jim's past could not affect either Tom or me. We knew our business. We'd never seen a wild grizzly, either of us, but that didn't matter. We had shot almost everything else in our time and felt that we should give a good account of ourselves under any possible conditions. Tom waxed grandiloquent and was disposed to quiz our guide.

"I'll tell you what it is, Jim," said he, "there's been a lot of humbug about the danger attending a meeting with your cinnamon and your silvertips and all the other big bears out here, and about big fights of which you fellows blow so much. You hunters have formed a sort of pool for lying about bears, each one of you standing by the other. That's the size of it. I don't believe a grizzly ever tackled a man unless the grizzly was cornered or too badly hurt to get away. It's all rot; you're a lot of bragging Ananiases!" and he threw a cracker at Jim, who chuckled rather grimly as he dodged.

"You'll know more about bear in a day or 2," he said.

"Will I?" said Tom, "oh, will I? Why, man, it's a dead cinch on a bear when you've got a good repeater. You could kill an elephant with such a gun. It's only a matter of keeping cool. You can't help pumping him so full of lead before he gets to you that he's a dead bear. They're lumbering brutes anyhow. Why, I believe I could murder one of them with this. I'd run around him and ram the point into his cervical vertebrae"; and Tom flourished an awful hunting knife, a foot in length and absolutely new.

Jim only chuckled again, while I joined in with Tom to tell how easy it would be to kill a grizzly, even with a club, if one would keep moderately cool; but, finally, tired of the chaffing, we decided to turn in.

Old Jim simply spread his blankets and crawled in between them, but Tom and I scorned such ancient devices for comfort in the mountains. We knew the night would be cold, so we got out some quarter inch rope from our pack, spread out our blankets, rolled ourselves up in them and then lashed them about us as old Jim lashed the loads on the burros. We said we were mighty certain then that we should not kick the covers off during the night and wake with cold backs, cold feet, rheumatism, etc. We certainly did sleep warm. We had had a hard working day of it, and within 10 minutes from the time we lay down I was contrasting the volume and quantity of my companion's varying snores. In another 10 minutes I was asleep myself.

I was awakened by the most blood-curdling yell it had ever been my lot to hear. No! "blood-curdling" doesn't describe it! It was blood-solidifying! I lifted my head, only to see old Jim dive under the edge of the canvas farthest from the entrance and there disappear, and to see Tom flopping about like a beheaded chicken. It was he who had emitted that yell. I couldn't understand it. I turned toward the entrance. A head had been thrust through, a head which seemed to me as big as a barrel. It was that of a grizzly! Then I yelled myself.

"Woof!"

There was no time for fooling with the

rope fastenings of my blankets. I flopped and rolled with all the energy of deadly fright toward the side of the tent where Tom was. He had got a hand free and was tugging at the canvas. There was an angry growl, and the bear came tearing in just as we rolled out, almost together. Tom was ahead and kept rolling, while I made as good a second as possible. It was all over in a moment. Tom suddenly shot out of my range of vision. He had dropped somewhere. The next instant there was a splash 15 feet below, which sounded as if a whale had broached. I tried, hurriedly and bunglingly, to release myself from my blankets, when—

"Woof!"

The bear was ripping away at the tent cloth. I didn't hesitate any longer. I thought of home and of the friends of my childhood and rolled over after Tom. I missed him by about 3 feet. When about half drowned, and after I had caught up a gallon or so of cold water and weeds and a beetle or 2, I managed to lift my head above the surface. Tom had accomplished the same feat. We got out of our bedding —I don't know how—and stood close up against the edge of the bluff.

"D'you 'spose he'll follow?" gasped Tom in a whimper.

I didn't answer. I grabbed Tom by the arm, and, bending low down in that water, which made the marrow in our bones frappé, we crept silently along by the bluff until we were yards away and then made such a rush as we could across the pond. There was a tree on the bank. We climbed into its lower branches and sat there shivering. To our ears came again an occasional "woof" and growl from the site of the tent.

"I b-b-blieve he's g-got old Jim!" chattered Tom, and I thought so, too.

"Let's call for him," I said. "We're safe enough ourselves, anyhow."

We shouted together, and, promptly, there came back an answer from the vicinity of the tent. We knew then what the situation was. A few yards from the tent stood a solitary tree, a scrub oak, 6 or 8 inches in diameter.

"Where are ye?" roared Jim.

We called back in explanation, and then came an inquiry the most cruelly insulting ever made by one human being of another.

"Ye've seen yer bear. Are ye both keepin' cool?"

Keeping cool! We who had wallowed in and clambered through an acre of ice water! Through teeth that played like castanets we cursed the man in the other tree and threatened to kill him in good time if the Lord but spared our lives; and the old villain only laughed. But the case was getting serious.

"What's the bear doing?" I shouted.

"He's got the tent ripped to pieces and is gettin' away with the provisions. He's big as an ox."

"What shall we do?"

"Do? Nothin' but wait until he goes away. That is," Jim added, "unless you thought to take yer guns along, or Mr. Lorimer's got that big knife with him. There's a good chance now at the old feller's vertebray. He's got his head down in the pork kag."

It was awful, this derisiveness on the part of Jim, but we were helpless. We were in no mood for retort. We were getting more and more benumbed with the cold. Then Jim started out in another vein, and more honest and earnest, telling us to clamber to the ground and dance about until we got our blood in circulation again. It was a beautiful and inspiring spectacle as we followed his advice. We danced furiously until a degree of warmth did come to us; but we kept mighty close to the tree, though reassured by continuous verbal bulletins from Jim as to the bear's whereabouts and occupation. It was a fearful night, the hours passing like days to everybody save, of course, our visitor. It was dawn when he sauntered away, for the time, at least, the best fed monster of a grizzly in all Montana. He didn't pass within 100 yards of us, but Tom and I were in that tree again when Jim called to us that the brute was leaving.

We gathered at the camp and there held counsel. Tom wanted to kill Jim as a preliminary to the proceedings, and the guide was finally spared only because we needed him. The place was the finest wreck of a camping ground ever seen. Jim himself cheerfully admitted that; and of provisions for a month not more than *debris* enough to last a week remained. Still, the tent could be patched together, after a fashion, the guns and cartridges were all right, and the meeting terminated in a council of war. We were bloodthirsty. Jim was with us there, for he had been cold himself. We wanted the life of that particular bear. We got it, too. But that is another tale.

First Doctor.—Has the trouble reached an acute stage?

Second Doctor.—I should say it had! I've paid 46 visits and I haven't received a cent on account!—Judge.

AMATEUR PHOTO BY E. N. GOOD

HOWLING COYOTE.

Winner of 4th Prize in RECREATION's 6th Annual Photo Competition.

AMATEUR PHOTO BY MRS. P. B. KIRSCHNER.

RESTING.

Winner of 8th Prize in RECREATION's 6th Annual Photo Competition.

MY FIRST CAMPING TRIP.

REV. J. H. FULLER.

My impressions of the necessities for a camping outfit were obtained from books on camping written by people who, I fear, had never camped. I learned that all a true woodsman needed was a large stock of matches, kept in a dry place, a quantity of salt pork for frying fish, and plenty of salt. Accordingly I laid in an enormous supply of matches, of the 7-day variety, made a corner on the hog market, and took salt enough to preserve all the 6-inch trout in New England. After carrying them many miles over logs and through underbrush, I added them to the offerings which others had already made to the god of folly.

My first night in camp was passed under the canopy of heaven. The day had been long, the road hot and dusty. Night found us far from our intended camp, on the edge of the woods. This was not in our schedule. On their first trip all campers have a schedule. The darkness increasing so we could go no farther, we sought a shelter, reluctantly abandoning our schedule, which would have landed us in an abandoned house 2 miles farther on. Beside the road grew a thicket of evergreens. My camping book had told me that in an emergency such a place was excellent. It failed to state wherein the excellence consisted. Relying on that book, whose author I should like to meet, we halted for the night. Beneath the young hemlocks grew a luxuriant moss, and spreading our blankets on it, we prepared to sleep. After ½ hour we perceived that we were founded on a rock. We should have preferred sand.

Another fact began to make itself felt. The rock on which we lay sloped toward the road; a gentle slope, indeed, but sufficient for our discomfort, since at its foot was a puddle. When we felt the cold water percolating among our toes, we moved up. That operation we repeated 31 times before morning. As our time period was 15 minutes, I was able to tell the hour without consulting my watch. Time wore heavily on my soul, and the rock wore sorely on the nether portion of my trousers. Had I known the names of the stars, doubtless I should have passed the night addressing them personally, for they were many and beautiful. The æsthetic side of the situation did not, however, appeal strongly to me at the time. But as the Psalmist says, "Weeping may endure for a night, but joy cometh in the morning." After a substantial breakfast of cake, which we ate in order to save it, we shouldered our packs, brushed all the dew from the hemlocks down our backs, and, with appropriate remarks, pushed on.

After a few hours of tramping through the morning air, so refreshing after our night of torture, we came to a dilapidated sawmill village. There we hired a team and were jolted for 2 hours more, when we were deposited with our luggage close by an abandoned sugar house, where the trail entered the woods. "The jumping off place," our teamster, Jack Tinker, called it, and as he rattled homeward he turned for one last look at us, as though he feared we would really jump off. Late afternoon found us 5 miles in the woods, with a windfall covering over 100 acres before us. We could neither follow the trail nor pick it up again on the other side. Fortunately for us, we found a clearing at the left, and there we passed a comfortable night in the best preserved log shanty of a deserted lumber camp. Most of the buildings were wholly or partially in ruins.

Bears were the topic of conversation the next morning at breakfast, for during the night we had occasionally heard on the mountain side strange crashings and weird howls.

"Don't you fellows get scared of bears," said Tobias; "if we run across one, I'll take the gun and bore him plumb through." Fritz, my other companion, winked slyly but said nothing. To this day I fear he was the author of the weird howls.

At breakfast we enjoyed for the first and I trust the last time a new dish, which was the child of necessity. Our bread had been knocked to bits by the hard journey, and the only available way to use it was to fry it with pork in our new frypan. To our boyish eyes it almost seemed sacrilege to degrade our frypan, bought for frying sweet, toothsome trout, to this humbler duty, but we swallowed our pride and our breakfast. "Porcucere," we called the product, dignifying it with an aristocratic name, in which Latin scholars will perceive our attempt to combine the name of Ceres with *porcus*.

Armed with fishing rods and rifle my father had reluctantly allowed me to take, we started gaily down the brook which flowed past our camp and would lead us to Paul stream, the goal of our endeavors and the theme of many a merry liar. All day we followed the winding brook, angled the dark-speckled trout from deep, shady pools, and put them in the basket by our

side, tramped along abandoned lumber roads, through wild grass to our shoulders, and by mid-afternoon ate our dinner on the bank of Paul stream with a feeling of conquest and self sufficiency that might well be envied.

The darkening slopes of hills and mountains warned us to return. Expecting to move our camp to that place the following day, we set out. It was raspberry time, and now and then we passed through open places where bushes heavy with berries grew in profusion. Paths made by some clumsy animal passed through them at all angles, and the scent of crushed berries filled the air. "Bears eat 'rosberries,'" said Tobias; "perhaps we'll see one."

As we drew near our camp we were strangely silent. Perhaps some good angel sent us a presentiment of the danger ahead. What the others thought, I know not, but I was thinking of the noises of the previous night and of the crushed raspberries. How easy it would be for a bear to take possession of our camp and provisions. A night without supper and no breakfast! How hungry I felt! And then, suppose Bruin should prefer live meat to canned beans? Heaven forbid!

We emerged from the woods. O ye gods! There he was, his forepaws on the window sill, his huge head motionless, framed in the window like a picture of Satan. I handed the gun to Fritz. In his nerve and aim I had confidence. I opened my knife for use as a shell extractor and took a handful of cartridges. "We must be ready for a quick load," I muttered. For better observation, Tobias mounted the roof of an old stable near which we stood.

"Shoot steady and quick," I whispered, as Fritz swung the gun to his shoulder. Dead silence followed the sharp crack. In breathless anxiety we loaded and fired again. That time the bear moved; his head swayed from right to left and back.

"They always do that before they charge," whispered Fritz. "Let's give him another." And so we did; but no sign, no charge. I heard only a piece of loosened bark fall harmlessly from the roof of the old stable to my feet. On the ridge pole sat Tobias, doing service as a spectator. Suddenly he leaped to his feet and gave a yell of unbounded joy.

"Boys, it's only my old white-toed stockings that I hung in the window this morning to dry."

But his emotion was disastrous. The shaky old roof swayed, creaked, and broke. Down through the rotten boards went Tobias, his white face eclipsed by a cloud of flying shingles and dust. We dug him out, but reproached him not. We were too thankful that we had escaped "what might have been."

That night, when we went to the brook for water, we found in the sand one large track that had not been there in the morning. It had not been made by us, for we could not make another like it with the hand. Truly old Bruin had visited our camp in our absence, but preferred his diet of raspberries to the uncertainties of canned beans and young boys.

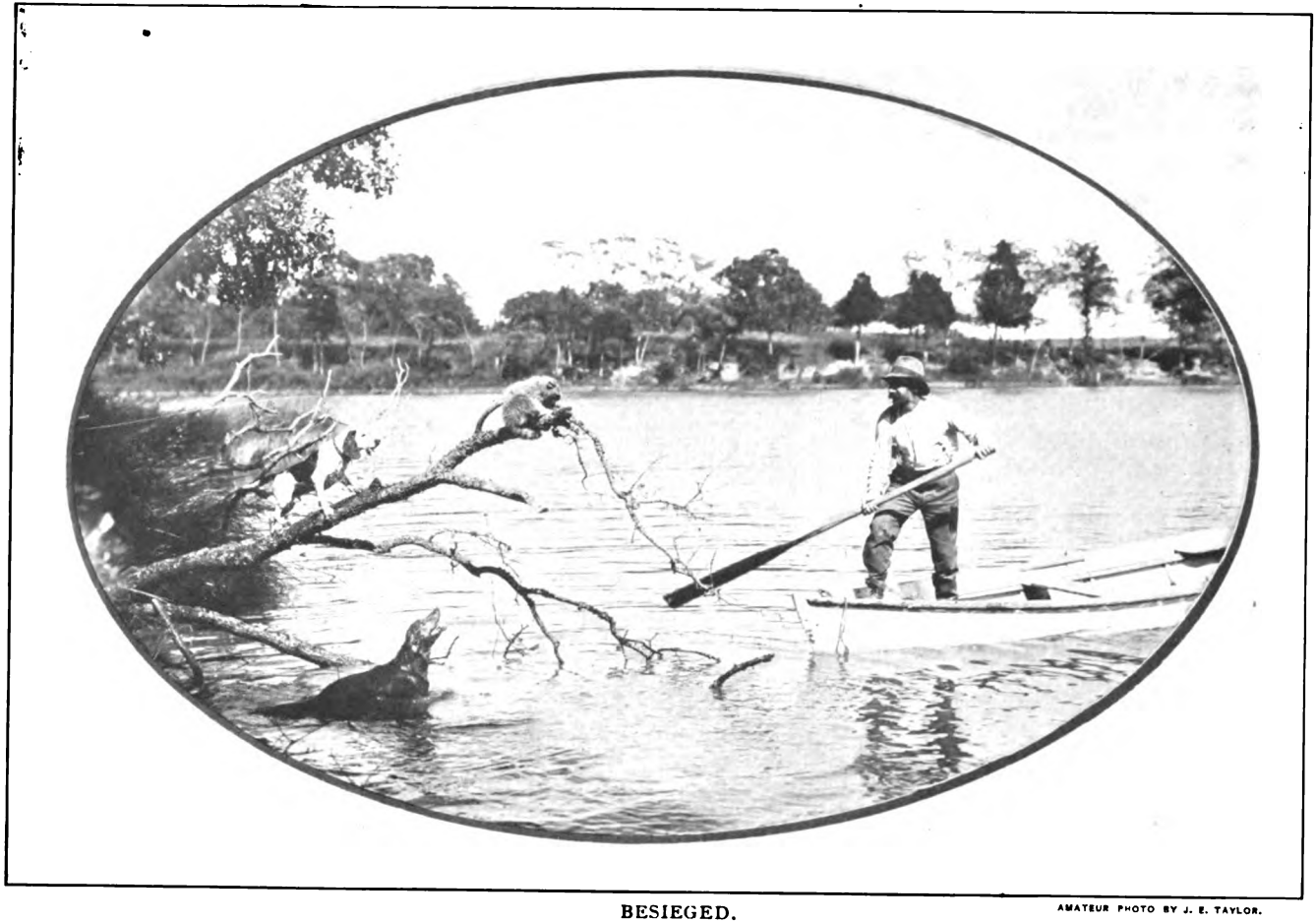
Do not scoff at my bear story. Most men have a bear story, but are they all as creditable to their chief actors as this of mine? Did I not act as a brave man should before a real bear? What matter, then, if after the trial was passed, the danger was found to be unreal?

One other fact I beg you to remember, the credit of which belongs wholly to Fritz. The 3 shots struck within a 2-inch circle between the eyes of the false-faced bear. Fritz fired from a distance of about 15 rods. You may be sure we were no nearer.

That night was our last in the woods. As the shadows of the mountains grew longer, and the sun went down in all the glories of a summer night, we ceased talking and listened to the melancholy evening song of the white throated sparrow. It made us homesick, too. We decided to move on the morrow and finish our outing at a small pond nearer civilization and farther from the haunts of bears.

Sniffles—We are gradually doing without things. We now have horseless carriages, smokeless powder, wireless telegraphy, and——

Biffles—Yes, and sunless springs, rainless summers and snowless winters.—New York Herald.



BESIEGED.

AMATEUR PHOTO BY J. E. TAYLOR.

Winner of 5th Prize in RECREATION's 6th Annual Photo Competition.

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ON FORBIDDEN GROUND.

J. WILLS

In June, 1900, the little steamer "Tussler," 12 tons burden, left Ketchikan, Alaska, for home, coasting along Southern Alaska and down the peninsula as far as Dutch Harbor. Thence we went to St. George Island and lay to leeward for shelter. We went ashore, which is forbidden ground, and the blue foxes followed us like dogs. Six of them even followed me aboard the boat.

St. George is one of the Pribiloff group which the North American Commercial Company has leased from the United States Government. The U. S. S. "Rush" came and dropped her hook alongside. That put a stop to going ashore any more, though we looked with longing eyes at the seal rookery.

Next morning we pulled out for St. Mathews, 235 miles Northwest by North, from St. George, and 475 miles from Dutch Harbor, arriving there after a 36 hours' run. We went ashore and filled our tank with fresh water. This island is uninhabited except by patch and white foxes and polar bears. We saw a few sandhill cranes, in a lagoon in the middle of the island.

After a stay of 8 days at St. Mathews, we pulled out for St. Lawrence, which is 175 miles Northeast by North. We had a hard trip, as the sea was mountain high, and the wind was fierce. Several times I thought the little steamer would never make the island, but she finally reached shelter behind Southeast Cape. The land runs back several miles, is low and full of fresh water lagoons. Thousands of emperor geese breed in those lagoons. With a Savage rifle I killed 7 geese and 2 white swans in one hour. With the exception of 2 geese all were shot through the head. I made one shot on the wing with solid point ball and got 3 geese. We could have killed hundreds of thes birds and swans, but there being only 5 in our crew we had all we could use, and thanks to RECREATION, I have long since lost the desire to kill all in sight just for the sake of killing. Unfortunately we had no camera.

AMATEUR PHOTO BY JULIUS STERNBERG.

PATTERSON ISLAND BLUE FOX FARM, NEAR KETCHIKAN, ALASKA.

There are over 800 foxes on the island. Established 4 years. Original start comprised 25 foxes, males and females

"BOB GIVE HIM A YANK WHICH STARTED HIM ROLLIN' AGAIN."

A DEER RETRIEVING DOG.

E. B. COLLINS.

Jake and me was runnin' a ranch up on Roane creek and we thought we could make somethin' out of the shootin', so we kinder give out over in Debeque that we could accommodate a few people what wanted to do some huntin'. The first folks what come 'long was a man and his wife. This kinder stumps my pardner, for he 'lowed things warn't fittin' and he didn't know just how to cook for lady folks; but it warn't long till they made Jake think everything was first class, for they didn't miss any meals and had no kicks comin'.

These folks didn't do much shootin'. The lady just killed a few ducks so as to have a change in the meat, as we only had venison. The gentleman he was after jack rabbits. When he would get a jack he would bring him to the ranch, skin him and cook all the meat off his bones; then set the bones all back in the places where they belonged, and just study them a long time. You see, he was one of them sculpter fellers what makes all kinds of animals out of mud and rock; and he makes them look like they was sure alive. He was larnin' how to make a jack rabbit.

Well, the next folks what come was 2 men from way back East what wanted to do some deer shootin'. I says to Jake, "These fellers just come out here to see how many they can kill, then go back home and blow about it and make their friends think they are great hunters; but it don't go with me. I'm the game warden for this here district and I'll just tell them the're allowed to kill only 2 deer apiece, and they better look for horns before they do too much killin'."

You see, does was plenty. They had come down off the high tops and was feedin' low down so you could just knock 'em over as easy as you could sheep in the pasture. But I didn't get no chance to say nothin' to them fellers 'bout this, for they just jumps out the wagon and tells their guide to look after the horses and their traps, as they was goin' up the gulch to look round before dark.

They comes back just as supper is ready and kinder makes theirselves known to the sculpter feller and his wife. When they sets down to supper they asks about the deer shootin' 'round there. The young feller he said he had come a long way to shoot a deer and was goin' to stay until he got one; said they had seen quite a number of does in the gulch just before dark, but as they were after horns they didn't do any shootin'. So I says to Jake, "I guess these fellers ain't no butchers, shootin' for some town market."

The next mornin' they gets up early, goes out and breaks the ice in the water bucket so as to wash. The young feller he just blows the water like he's skeered he'll get some on his face, and then he says he likes to wash in ice water. After they gets a good breakfast they starts up the gulch. I says, "Better take Bob 'long. He's good on deer, and if you wound one he'll keep on his trail till he rounds him."

They didn't seem to think much of Bob, as he was scraggly and not much for looks, part shepherd and the other part just dog, you know; but he begged so hard they whistled him along.

They comes back that night dead tired and hungry as bears; said they didn't know they had gone so far till they started back, but as they was well paid for the trip they didn't care 'bout bein' tired.

After they had their supper, the young one he starts to tell me 'bout Bob. He says, "Say, Ike, you know you got the best dog for deer that ever went over the hills after them. He don't only round 'em up, but he brings 'em to you. I killed a 200 pound buck this afternoon and Bob goes and fetches it right to me."

Now, you see I knowed Bob; he wouldn't weigh over 30 to 40 pounds, and when this young feller commenced to tell us 'bout bringin' him a 200 pound buck, I just thought 'twas time to call him off and ask him to explain, as I didn't want Bob's reputation hurt as a deer dog.

So he says, "Ike, 'twas this way: The buck was with a lot of does feedin' way low down the mountain, and when we come up he winded up and started for the rim rock. After he gets up there he had to circle round so as to get out. As he come my way, I commenced to pump lead after him, the third shot strikin' him just back of the shoulder and rangin' back. Down he went. He would try to get up and when down he would go again. I saw he was hard hit, so did no more shootin'. Bob was standin' by my side all the time, givin' little low whines and anxious to go after him, so I says, 'On Bob, bring him down.' Bob starts up, goin' round and round till he gets up on the rim rock, where the buck was. They had quite a scuffle, and the deer fell off the shelf as it were, and started to roll down the mountain. He lodged in some brush, but Bob come on after him, got hold and give him a yank which started him rollin' again. This was repeated till the deer was at my feet."

This explanation seemed to satisfy all the folks, so I told him I knowed Bob was an awful smart dog and I believed under certain conditions a 30 pound dog could retrieve a 200 pound deer.

ON THE TRAIL OF THE FOUR FOOTED LOCUST.

H. H. ROSE.

Early one warm morning in May we left Pasadena for a pedestrian trip to the high Sierras of Central California. Our party comprised my friend A. H. Conger, his son Harry, a strapping youth of 15, and me. Three burros laden with provisions and camping supplies constituted our outfit. We, roughly but comfortably clad, trudged behind.

Evening found us 12 miles out, thoroughly tired and willing to camp in any old place affording wood and water. Next morning an early start carried us across the wash of Big Tejunga canyon before the day grew excessively warm. Our camp the second night was near the San Fernando tunnel of the Southern Pacific railroad. The third day tried us severely. Hot, dusty roads, with a fierce head wind, made walking hard, and at 1 p. m. we camped in a green pasture on the Newhall ranch. About sundown Conger went shooting near camp, returning shortly with 7 fat young cottontails, giving us material for a fine stew.

Next day we pegged steadily upward through the Castaig canyon, leaving the wagon road to our right and taking a good mountain trail to Miller's ranch, at Oak Flat. There we camped under some fine oaks, but feed and water were scarce. That day was notable for the large coveys of quails seen along the road, the dry season seemingly having prevented them from pairing. The next 2 days we hunted and enjoyed the scenery.

From that point our route lay up the Piru. A short distance from where we struck the creek is a fine ranch owned by an eccentric English bachelor. Surrounded by his horses, cattle and bees he lives the life of a patriarch, barring howling children and scolding wives. Two miles farther up we made an early camp, as the threatening skies foretold rain. We remained until Monday morning, when we traveled Northward up the canyon, which broadens into a wide meadow at Bailey ranch. About 2 p. m. we cut into the main wagon road again, West of Necnach. I killed a large male glossy ibis, or bronze curlew. We camped for the night at Gorman's, on the old Fort Tejon road. Vast masses of black clouds rushed over the summits and poured through the pass, driven by a furious wind. The weather, to a Southern Californian, was fearfully cold, so after a hasty supper we crawled into our blankets, pulling the double folds of our tent over us.

Next day we made 18 miles down hill to Rose's station, passing through a grove of the largest and most stately oaks in California. Passing Castac lake, we reached the ruins of old Fort Tejon, an adobe structure built by the Mexicans to overawe the Indians. At the top of the pass, over 4,000 feet above sea level, I saw a flock of stilts circling over a cienaga. Hastily seizing the shot gun I ran to the fence and as they flew by gave them both barrels, dropping 6. Then Harry took the gun, and following them across the pasture secured 5 with one shot. Though not first class eating they made a palatable stew for supper.

From Rose's station to Granite station, through Bakersfield and Poso Bridge, the road passed over alkali flats and dreary barren hills, except in the irrigated district about Bakersfield.

The road Northward from Bakersfield leads over barren hills for 25 or 30 miles. The region was once carpeted with flowers and bush grasses, but the sheep, that "4-footed locust," as John Muir aptly terms him, has destroyed its beauty, and to a great extent its value. At Poso Bridge we found a few cottonwood trees in a dry, sandy wash. A well dug in the dry channel furnished water. Poso Bridge and Granite Station, 12 miles farther on, are just sheep shearing points, as many as 60,000 being shorn there semi-annually.

The Monday following we passed through Glenville, a pretty mountain village, and camped among pines and cedars at Burton's, 9 miles beyond. The next day we reached the end of the wagon road at Parson's mill. There we found a fine orchard, and bought some excellent apples. Steady plodding pulled us over the bald summit at the head of White river, and we camped in a deserted cabin at Tobias meadows, about 7,000 feet above sea level.

Off in the morning, we followed a good but rocky trail over high ridges and through dark canyons. We stopped for lunch at "Dirty camp," where years of sheep folding have covered the slopes with droppings and given the place its name. We camped for the night beside a fine stream at Dry meadows, where countless sheep ba-a-a-ed all night. At least 200,000 sheep are now trespassing on the National Forest Reserve in these mountains, doing enormous damage to young trees and shrubs and incidentally to the water supply.

June 1st we reached Kern lake. This is a widening of Big Kern river and was formed in 1868 by a landslide occasioned by the great earthquake. Much timber is still

standing half submerged. The lake abounds in gamy trout of great size. Ordinary tackle is far too light, and though we hooked many fish we brought but few to book. The largest one taken I landed after a 35 minute struggle. He measured 22 inches and would have weighed 4½ to 5 pounds. There are many larger ones in the lake, some 30 inches long having been taken.

We obtained saddle horses for a trip up Whitney creek, which heads high on Mt. Whitney, and is the home of the famous golden trout. They are found only in that and tributary streams. Light golden yellow, heavily striped with carmine and with bright carmine bellies, they are wonderfully beautiful. We caught many.

On the trip Conger saw a female canvasback duck fly into a hole 30 feet from the ground in a big pine stub. As it was the breeding season she doubtless had her nest there. I never before knew any of our ducks nested in hollow trees, except the wood duck, fulvous duck, and occasionally the merganser. We surprised an old merganser with her brood one morning and it was amusing to see the fluffy little rascals clamber on their mother's back as she paddled rapidly down stream.

Leaving Kern lake June 12, we made Little Kern crossing that day. The next day we took the Jordan trail to Camp Nelson, on a branch of the Middle Tule river, reaching there at the close of the second day. We renewed supplies and went leisurely down the river to Portersville, stopping 2 days at the house of the Porterville fishing club, where we were cordially received. At that point we sold our outfit, and taking the train, reached home the next day, bronzed, tough and hearty.

AMATEUR PHOTO BY GEO G. CANTWELL.

A KLONDYKE SUN EFFECT.

John Smith, of Mars—Tesla seems to be sanguine that he will be successful in communicating with the people of the Earth.

William Jones, of Mars—I wonder if the Earth has a Tesla, too?—Life.

IS THERE AN IBEX IN THIS COUNTRY?

For 20 years past I have been hearing rumors and reading newspaper accounts of the appearance of so-called ibex in Idaho, Montana, Oregon, Washington or British Columbia. I have always regarded these stories as pipe dreams and have run down several of them. In each case where it had been claimed that the ibex had been killed the specimen proved on examination either a female mountain sheep or a white goat.

The region in which it is claimed the ibex has been found has been worked over by fur traders and trappers for 200 years, and if there were such an animal there some one of those trappers, or some sportsman or naturalist, would surely have taken a specimen and it would have found its way into some museum.

Here is a letter that reads more like fact, more like the report of a careful observer, than any ibex story that has ever come to my notice:

Tacoma, Wash., Nov. 12, 1901.

In May, 1900, I was staying in the Crow's Nest pass, Canadian Rockies. One evening while going along the railroad track 2 animals came down from the mountain side to the track. They would have weighed about 160 to 180 pounds each. The color was ashy gray. The hair on the back was about 6 inches long and stood up, forming a black line from the back of the head to the tail. The under side was a little lighter color. Legs were of medium length. The horns were about 3 feet long, beautifully black, curved back and a little outward. I was within 15 yards of them and had a good look at them. I believe they were ibex. I send you a drawing of the head of one, made while looking at them. I hunted for them a week or so after that, but never saw them again.

A rancher in Alberta told me that in old times when he lived in Oregon he saw several of these animals, which he called antelope. He recognized the drawing instantly as of the same animal.

John F. Almon.

Could these have been the descendants of some domestic goats that were liberated years ago? Or is there really a species of ibex indigenous to the Northwest? Who can tell?—EDITOR.

IS IT AN IBEX?

AMATEUR PHOTO BY JULIUS STERNBERG.

TUG OF WAR AT KETCHIKAN, ALASKA, JULY 4TH.
Indians vs. Whites. Declared a draw after 2 hours and 15 minutes.

BOIL IT DOWN.

Joe Lincoln, in L. A. W. Bulletin.

If you have a thought that's happy,
Make it short and crisp and snappy.
When your brain its coin has minted,
Down the page your pen has sprinted.
If you want your effort printed,
Boil it down.

Take out every surplus letter,—
Fewer syllables the better,—
Make your meaning plain,—express it
So we'll know, not merely guess it.
Then, my friend, ere you address it,
Boil it down.

Boil out all the extra trimmings,—
Skim it well, then skim the skimmings,—
When you're sure 't would be a sin to
Cut another sentence into,
Send it on, and *we'll* begin to
Boil it down.

Reprinted from March, 1901 RECREATION.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman

MORELIGHT ON BABCOCK.

From the following correspondence it seems Babcock's neighbors had not understood his practices. Now, however, they have no further doubts of his swinishness:

Santa Barbara, Cal.

Mr. G. O. Shields, New York:

Dear Sir—I have heard a different version of the 2,000 birds a day story from the one you have printed, and I should like to ask if you are positive in your information. In this country we are bothered to death with mud hens, as we call them, a species of coot, that gather on our duck ponds and destroy great quantities of the food the ducks seek. These birds come in countless numbers and are very annoying. I have heard it was these birds that were killed on Otay lake. I saw the account in a local paper of 2,000 being killed one day and 1,000 another day, but have always understood the birds killed were mud hens. If they were ducks I should be willing to brand the killers with a much worse name than game hog, but if I am correct in my surmise I should say they did right. I am a member of a club that has a fine lake in this county, preserved, where we used to get good shooting, but for the last 2 or 3 years these mud hens come in such numbers as to render shooting almost impossible, and by quickly devouring the natural feed they soon drive the ducks away. We are even now planning some such battues as we understood the Otay lake people used, to rid ourselves of the pests. In shooting over the lake last winter I would often kill 3 or 4 of these mud hens at a single discharge of my gun in shooting at ducks that got up in front of my boat. If you happen to see in the local papers of this section of the country that the members of the Guadalupe Duck Club have killed 16,000 ducks in one day on their preserve don't dish us up. They will have been only mud hens.

Seriously, I think the new game laws just passed by our Legislature will stop a great deal of this kind of outrageous killing of game. The bag limit, or prohibiting the possession of more than the bag limit, is a fine thing. It will practically stop shooting for market, as the pot hunter can not afford to give up his other work and go hunting when he can only kill 50 ducks in one day. Besides this, we can get at the marketman for having in his possession more than the number. I should be pleased to have your authority for the Otay lake story. E. C. Tallant.

ANSWER.

I am glad to have your frank and manly questions and suggestions. I am aware that Babcock and his outfit killed a great many mud hens in order to get rid of them, and while I do not at all admit the justice of this, it is not the killing I complain of. For 3 or 4 years past Babcock and his friends, sailing under the name of the Otay Gun Club, have been making records on ducks. Not only this, but they have been employing professional photographers in many instances to record their slaughter. A friend of mine who recently spent a week at Babcock's hotel tells me he has a large album on a desk in the office almost filled with these duck hog pictures. He says the photos show stacks of ducks on the ground, wagons loaded with ducks, and at least one man standing in front of the camera, completely covered with strings of ducks except his head. The birds shown in this album are not mud hens, but ducks of various species. I am told that the negatives of these pictures are promptly destroyed, or carefully preserved by Babcock, in order that no stray copies of them may get into the hands of people who might be inclined to use them in educational work.

I seriously doubt the wisdom of your proposed match on mud hens. These are in the main harmless birds, and they are almost the only specimens of bird life that remain in the vicinity of small lakes and ponds in various portions of the country. They should therefore be spared for the interest and entertainment of the people at large, even though they may become a nuisance in certain localities. I do not mean to say that you would deserve any serious condemnation if you did kill a few hundred of these birds, but still I am inclined to think it would be wrong for the general public.—EDITOR.

Santa Barbara, Cal.

Mr. G. O. Shields:

Dear Sir—Have read your favor of the 1st with great interest. What you write me about Babcock puts a very different aspect on him from what we have generally conceived him to be. We had heard the 2,000 birds in one day story, and we had heard they were mud hens, destroyed to rid the shooting preserve of them; hence we did not attach any importance to the other stories. We have been so troubled with these mud hens that we can sympathize with anyone who destroys them, but we do not countenance any killing of game

for the purpose of making a record. In our duck club we limit our members and guests to 25 in any one day and do not permit the selling of any game killed on the lake we control. In fact, the present game laws of our State, just passed, were framed at a convention held in San Francisco, of which I was a member; and other members of our club were greatly instrumental in getting the law passed by the Legislature and signed by the Governor. We have our county well in hand in the matter of game protection and do not have many violations of our game laws.

The matter of the mud hens is becoming serious. Every year shows a big increase in the number of them and a correspondingly short period when ducks stay on the lake. It is evident the mud hens eat of the food of the ducks and the latter are soon compelled to seek other quarters. You can not imagine the numbers of mud hens that can be seen in the winter on our lake. They must be seen to be appreciated, and unless we begin to destroy them we will have to give up the lake as a ducking ground. Every year shows a great reduction in the number of ducks that visit the lake. What proves to me that I am right about the mud hens eating the food and forcing the ducks to leave is the fact that the mud hens leave when the ducks do, showing beyond a doubt that the food is exhausted. E. C. Tallant.

OTHERS PROMISE TO RESTRAIN INDIANS.

Following are further copies of replies to the circular I sent the Indian agents of the United States:

Fort Berthold Agency, Elbowoods, N. D.
Mr. G. O. Shields, New York:

The protection of game on this reservation receives constant attention. As you are aware, the game laws of North Dakota require that hunters obtain a license to shoot game of any description and restrict the manner of killing to a gun held at the shoulder. It is a pleasure to be able to state that the majority of the Indians belonging on the Fort Berthold reservation, who do any hunting, apply annually for hunters' licenses. While they can not be prevented by law from killing game on their own reservation, we have by example and persuasion done much toward influencing them to comply with the law. As for killing game off the reservation, they do not at any time now kill antelope. Deer are killed by them only in season.

The game laws are violated by some of the whites in the vicinity of the reservation oftener than by the Indians. Some of these white men utterly disregard the law and kill deer at all times of the year. Large game has nearly disappeared from this part of North Dakota. Antelope are rarely seen now, and deer, once to be found in every thicket along the Missouri river, are found only at a few points where the undergrowth is almost impenetrable to man. Two years ago 2 bighorns were killed in the badlands of the Little Missouri river, but they were probably the last in that part of the country, as none have been seen since. Frequent rumors are heard of bear being seen in the Little Missouri country, but I doubt their reliability. A bear was, however, killed there a little over a year ago by a small party of cowboys. Beaver are nearly extinct, but even the few remaining are not safe from some vandal if seen. Birds are plentiful. Brant and several species of ducks have large breeding places on the reservation. Prairie chickens make their home here the year around. It is probable there will be a large decrease in the number of chickens the coming winter on account of the loss of native fruits, owing to late spring frosts. During the latter part of September several chickens which I killed had their crops full of grubs, etc., something I had never seen before. This was due to the scarcity of buffalo or bull-berries, on which they usually feed.

You are again assured that all due steps are taken for the protection of game on the reservation. If the game wardens off the reservation were more numerous, or attended more strictly to their duties, some of the violators or hogs might be taught a lesson they would remember.

Walker Lee, Agency Clerk.

Jocko, Flathead Agency, Mont.
Mr. G. O. Shields, New York:

Under the treaty of 1855 with the Indians of this reservation, they retained the right to hunt and fish on all lands of public domain, with the same privileges as the whites. These Indians are generally law abiding and wish and undertake to respect the stringent game laws of this State. I have made it a point in the past, when the Indians are leaving the reservation for the annual hunt, to inform them of the game laws and to urge on them the necessity for observing same. There is little complaint in this section of the country against our Indians, as the laws are generally observed. I am in full sympathy with your work. As agent of these Indians and personally I do all in my power to preserve the game of this region, and shall be pleased to give you, at any time, all possible aid in your work. W. H. Smead,
U. S. Indian Agent.

Klamath Agency, Oregon.
Mr. G. O. Shields, New York:

I am pleased to be able to say that I am in hearty accord with your work and that my influence has always been in the in-

terest of game protection. Born in Oregon, brought up in the wilderness, experienced as a hunter and scout, and long identified with the Indian Service, I have had ample opportunities to realize how merciless our people have been in the slaughter of the thousands of splendid game animals which inhabited the mountains and plains of the Pacific coast. You may rest assured I am doing much work toward securing the observance of the forestry and game laws on the part of the Indians under my charge.

With ardent wishes for the success of your important work, I remain,

O. C. Applegate, U. S. Indian Agent.

Colville Agency, Miles, Wash.

Mr. G. O. Shields, New York:

I fully agree with you in what you say with reference to the destruction of game, both by Indians and whites. I will, in every way I can, assist you and co-operate with you, and will see to it that the Indians under my charge observe the laws of this State. The permit system in vogue among the Indians is a pernicious one, and has been considerably curtailed at this agency during the last few years.

Albert M. Anderson,
U. S. Indian Agent.

Jicarilla Agency, Dulce, N. M.

Mr. G. O. Shields, New York:

I will gladly assist in seeing that the game laws of New Mexico are enforced. I have already taken up the matter with the Indians, and they fully understand the laws of the Territory.

A. S. Walpole,
U. S. Indian Agent.

GAME PROTECTION IN THE SOUDAN.

W. T. HORNADAY.

Englishmen are not only first class sportsmen, but they are also model game protectors. They go on the principle that the way to protect game is to protect it; and the lavish manner in which they lay down laws and prescribe stiff penalties is enough to excite a degree of admiration amounting to envy.

Year before last Rhodesia began to protect its game. Last October the Anglo-Egyptian government of the Soudan adopted a set of game laws and regulations that may well serve us as a model for Alaska. The official pamphlet, "Notes for Travelers and Sportsmen," tells sportsmen where the Soudan is located, how to reach it, how to live and hunt in it, how to get away from it by the shortest routes, and what everything, save courage, costs in hard cash. Incidentally, there is added a postscript about hunting licenses and the cost thereof, and a warning of the official inspection of all trophies that awaits the hunter on his return to civilization.

Khartoum is now easily reached by steamer and rail; from December to March the Soudan government runs comfortably fitted tourist steamers between Shellal and Halfa, on the Nile; and "2 trains *de luxe*, with dust proof sleeping and dining cars, fitted with electric lights and electric ventilators," run between Halfa and Khartoum. Think of palace cars now in Khartoum! If you wish to send a money order to El Obeid, or telegraph to Goz Abu Guma, all you need, to accomplish either, is the price. As a civilizer and developer of wild and lawless countries, England is a world beater; and may her power and provinces never grow less!

Nine species of wild animals and birds may not be hunted, killed nor captured in the Soudan. They are the chimpanzee, eland, giraffe, rhinoceros, zebra, wild ass, ground hornbill, secretary bird, boat-billed heron.

Under an "A" license, costing 25 pounds sterling, 13 species of large mammals may be killed or captured, 2 to 6 of each, up to a possible total of 51 head. These are the hartbeest, 2 species of waterbuck, 2 species of cob antelope, the reedbuck, gazelle, roan antelope, 2 species of oryx, the addax, bushbuck and kudu. In addition to the above, 2 specimens each of flamingo, pelican, spoonbill, crowned crane, stork, heron, egret and hammerhead may be killed or captured.

Any sportsman who desires only 5 pounds' worth of license is furnished with one at that figure, marked "B," under which he may kill 10 each of wild sheep, ibex, wart hog, bustard and various antelopes and gazelles.

But there is a joker in the pack. Under appendix "H" is a list of export taxes on specimens, "living or dead, or parts of specimens," which is calculated to make every live animal catcher in the Soudan think hard. The skins of most creatures are free of export duty, but the exporters of live animals will hereafter pay through the nose. With all the chances of death to face, these are some of the export duties:

On each chimpanzee, giraffe, hippo, wild ass, buffalo or zebra, $125. On each elephant or rhinoceros, $250, and on most other hoofed animals worth having, $10 each.

Clearly the Soudan government regards its wild animals as a valuable treasury asset, and proposes to derive some benefit from their withdrawal, by death or by capture alive. The trophies brought out by sportsmen or travelers are all carefully inspected by the government officers, at points of departure, and if any penalties are payable, they are demanded then and there. Furthermore, "sportsmen, on re-

turning from their shooting trips, must furnish the Superintendent of the Wild Animal Department at Khartoum with a complete and detailed list of all animals shot."

Besides the shooting regulations imposed generally throughout the Sudan, a large "officers' game reserve" has been created, in which the animal life is absolutely protected at all times, save when hunted by officers of the army of occupation, or officers of the Soudan government. At this distance such a game preserve seems a commendable feature; but if we were there, a down-trodden holder of a "B" license, in a poor country for game, on the Eastern bank of the Blue Nile, we should be likely to feel that the officers' preserve is a great iniquity, and an infringement on the sovereign rights of the people. Were we compelled by cruel fate to live in the Sudan a term of years, we should be likely to feel that the preserve, and the right to shoot in it, constituted only slight compensation for our years of exile.

In view of the way game slaughter is now proceeding in Alaska, it is truly invigorating to see how Englishmen have grappled with the subject of protection in the wildest part of Africa. Surely we should be able to do as well in Alaska.

OUR LUCK IN FLORIDA.

Lexington, Va.

Editor RECREATION:

Last winter 6 of us went to Kissimmee island, Florida, resolved to secure game or perish in the attempt. We carried 10 days' rations. After 3 days' tiresome traveling we camped on a big slough known as the Morgan Holes.

An hour before reaching our camping place 2 of the party got out of the wagons with their rifles, intending to take a circuit through the cypress and meet us at camp. Fifteen minutes after they had left we heard firing from their direction. We went on, and as 2 or 3 of us were young veterans of the Spanish-American war, we soon had our tents up and wagons unloaded.

The 2 hunters presently came in, but they had killed nothing. They had walked up 5 deer and had made 30 clear misses.

While at supper it began to rain and in 2 minutes our tents were flooded. We then moved camp 2 miles farther, to a good dry place, built a fire and finished our supper. Ordering the cook to have breakfast at daylight we turned in.

I awoke next morning at 7 and found the cook dead asleep. We got breakfast about 9 and then started hunting in pairs, Jim and I together. After chasing unsuccessfully a flock of turkeys, we saw a large pair of antlers approaching. We crouched behind a bunch of sawgrass and pretty soon the buck came in sight, walking directly toward us, only 200 yards away. Just then I took a violent chill. He came steadily on until within easy range, then winding us he started off. Our rifles rang out simultaneously and he fell. We walked up, prepared to bleed him. Jim was feeling for the artery when the deer sprang to his feet. Jim grabbed him as he got up, and a more superb exhibit of kicking down and dragging out I've never seen. Jim yelled to me to shoot, but I dared not for fear of hitting him. Besides, I had no time to shoot. I was busy laughing.

The buck finally kicked Jim loose and ran into a small cypress pond a half mile away. After getting a good cussing from Jim, who said I had acted like a d—n fool, we went to the pond. The buck came out, and 3 more bullets in vital spots downed him for good.

We bled him and hung him up to be hauled into camp with a wagon. We then turned homeward, getting to camp about 4 o'clock. The others of the party came back empty-handed, though all had seen game.

Presently a middle-aged Indian walked up, and with customary "How?" shook hands all around; and with his limited English and our more limited Seminole we were soon in conversation. He, too, had been hunting, and was returning to his camp; seeing our fire he thought he would pay us a call. He had eaten no supper, and we ordered the cook to prepare him some. After a hearty supper and a heartier drink he picked up a small doe he had killed and prepared to leave. We made him a present of a quart of "66" and he left highly pleased with our hospitality.

The next morning dawned cold and clear. Knox decided to go with me, and as the cook wished to try his luck we permitted him to go with us. After tramping 4 or 5 hours we started back toward camp without finding game.

Two miles from camp a fox jumped in front of us and Knox shot him. At the report 2 bucks sprang up about 250 yards away. Knox and I opened on them, but they were too far away. During the excitement the cook got 100 yards ahead, the dog following him. Glancing in his direction we saw the dog pointing. The pot slinger blundered up and 8 or 10 turkeys ran out, looking as big as ostriches. We used our rifles unsuccessfully at 150 yards.

On our return to camp we found each of the other boys had game. As that was Saturday we rested over Sunday, and at daylight Monday we started for home, which we reached Tuesday night.

A. W. M.

AN ANTIQUE SPECIMEN.

Mr. J. E. Pratt, Chief Warden of the Michigan Division of the League, sent me a letter he recently received, and which I print verbatim:

Conneaut Ohio
Oct 8thee 1901

J. Elmer. Pratt
Dear Sir

dear Sir I take this opertunety to right asking you a few questions in regard to the gaim laws of mishigan the first is what is the law in regards to a foren hunter or from a nother state now I see in the news papers all kinds of laws now I see that wee can pay our $25 and kill 3 deer but not sell eny nor take eny out of the state now what are wee to do with what wee cant eat now I halve hunted on the northen pensley for the last 18 years and halve paid the licens ever since it has bin leveid on ous out of the state but halve sold any extry venson all but twise I tride to fetch ham of venson home in my trunk two falls and had my trunk broken open and that little taken out that I tride to fetch home to my famley to halve a tast but failed now I halve hunted for the last fifty five years and still wants to halve a little hunt yet but dont no what to do with my venson when I git it as I see the law I will halve to let it lay and rot now is there no way of giting a per mit I want to hunt and I want to live up to the law now I go to Seney there I halve got my licens every year hoping to hear from you soon

Respectfuly
yours
F. B. Blood

F. B. Blood
conneaut
ohio

Mr. Blood is a specimen of the old time, backwoods, chin whiskered deer hunter. I have seen hundreds of them going to and coming from the Michigan and Wisconsin woods, and have encountered some of them while hunting in that country. They usually go in gangs of 10 to 20. Each man carries a roll of old quilts of the vintage of about '47, and the party carries several boxes of groceries, bacon, potatoes and other truck, done up in job lots and checked through as baggage. They are armed mostly with old time, long barrel, muzzle loading rifles, and carry with them ample supplies of powder, bullets, caps and even patches. When they land at the station where they leave the train they immediately look up some farmer or woodsman to haul their truck to the camp grounds and the men hoof it. They employ no guides and so do not leave one dollar a head in the country where they hunt, except for hunting licenses; and every officer who issues these licenses knows that it breaks the heart of every one of these old backwoodsmen to put up $25 or any smaller sum for a hunting permit. Such men find no more pleasure in hunting than a cow does in grand opera. They care nothing for the beauties of the forest, the singing of the wind in the pine trees, the song of the birds or the capers of the red squirrel, than a hog does for art. All these men want is to kill, and if perchance any one of them fails on a single trip to kill to the limit he feels he is disgraced forever. On the contrary, the man who first reaches the limit is king of the band. It is gall and wormwood to all such hunters that they can not be allowed to sell their game in order to pay their railroad fare to and from the hunting grounds. Mr. Blood is well named, and if he could only be induced to shed himself instead of the blood of the 3 deer per annum now allowed by the Michigan laws, it would be a good thing for the game interests in that State.—EDITOR.

DESERVES TO BE GOVERNOR.

Messrs. I. E. O. Pace, an attorney; T. Curran and J. S. Hammond, employes of the Jefferson Valley Trading Company; and Fred Warren, an employe of James Williams, of Whitehall, killed ducks on the 25th of August, which was before the open season had begun, on the presumption that the law did not mention them; but the version of the attorney-general has been that the old law held as to ducks, and it was thereafter illegal to kill them before September 1st. The game warden learned of the infraction and had a complaint lodged against the men. A hearing was had before Justice Cooley, of Whitehall, and he discharged the defendants. The game warden and county officers were then at work on the case, and the parties had a hearing before Justice Sweet, in Boulder. They pleaded the constitutional provision that they could not be twice placed in jeopardy for the same offense, so when their attorney moved for a dismissal, County Attorney Murphy acquiesced and it was done. The attorney-general didn't like the way things were manoeuvred, so he had a new information filed, on the theory that defendants had been on trial and acquitted for killing one duck, and there were 14 ducks yet to answer for. The parties were again arraigned before Justice Sweet, Attorney Balliett, of Helena, for Defendant Pace; Attorney Herron, of Butte, for the others. The prosecution was looked after by Mr. Mettler, assistant attorney-general; County Attorney Murphy and Game Warden Scott. After a conference Mr. Pace pleaded guilty and was fined $100 and costs. For the others the first effort was to establish that they could not again be placed on trial for the same offense, but the justice held that this was another duck, and the case proceeded. The principal witness for the State was Sully French, of Whitehall, and the killing of ducks out of season was established. The justice found the defendants guilty and fined them $25 each and costs. This will no doubt have a good effect on the law breakers, as heretofore little attention, if any, has been paid to infractions of the game law in this county.

Here is an attorney-general who deserves the hearty admiration and commendation of every friend of game protection in the

United States. It is rare indeed that we can find a man in such a position who is willing to take up violation of the game or fish law and push it to a finish, as the attorney-general in Montana has done in this case, and when we do find such a man, it makes every friend of game protection feel like throwing up his hat and shouting. The attorney-general of Montana deserves to be governor of the State. If he ever decides to seek that office, he has only to remind the sportsmen of that State of his action in this case, and they will do the rest. I am willing to bet on this.—EDITOR.

GAME LAWS BENEFIT FARMERS.

Mr. Z. T. Sweeney, State Game and Fish Commissioner of Indiana, in his annual report to the Governor says:

"Until within the last few years the opinion generally prevailed among our citizens that game and fish laws were for the benefit of the rich. This is now conceded to be a mistake. The rich man can have his sport whether there is protection in his locality or not, for he is not confined to it, but the whole country is open to him as a sporting ground. If game and fish are scarce in a neighborhood, he has but to step on a train and in a few hours be transported to a country where they are plentiful; but the poor man and the man of average means, who have to work from month to month, have no such opportunity, and unless they can find game and fish in their own locality they are practically cut off from hunting and fishing. The people now see clearly that the protection of game and fish is in the interest of the average man rather than the rich man. In reality the non-protection of game is for the benefit of the wealthy man, the game dealer and the market hunter, while protection is in the interest of the man of moderate means.

It would simplify the problem of game protection greatly if farmers and other laboring men could be convinced of the truth of what Mr. Sweeney has said. There is a well defined prejudice existing, in the minds of farmers especially, all over the country, against the men they term city sportsmen, dudes, etc. The farmers persist in saying and believing that game laws are made solely in the interest of these men; but such is not the case. Game laws are for everybody, and the great majority of law makers invariably consider the interests of their agricultural constituents carefully when they form and pass laws for the protection of game and fish. One remedy for such a state of affairs would be for city sportsmen to lease from farmers the shooting privileges on their lands, paying a small price per acre per year therefor. If this plan were generally adopted the farmers would then consider the game one of their valuable crops and would protect it in so far as possible from the depredations of pot hunters. All true sportsmen should consider this proposition carefully. The plan has already been adopted in many instances with good effect, and it should take generally.—EDITOR.

DEFENDS MICHIGAN MEN.

I note, with regret, in October RECREATION, the remarks of E. E. Stokes, on Michigan hunting. I have hunted deer in Michigan 15 years, and I have never known or heard of such conditions as he describes. No doubt there are many violators of game laws in Michigan, but my experience has taught me that hunters from other States have far less regard for Michigan laws than resident sportsmen.

Mr. Stokes laments that more hunters were not killed, and says of the 12 unfortunates who met death in the woods that they were "probably worth less than one deer." In all human probability he knew not one of the 12, certainly not all of them, and his rash judgment in that matter discredits the rest of his conclusions.

I, of course, am not prepared to say that his statements as to the number of deer illegally killed in his vicinity are untrue, but I can not believe that of 5-6ths of the deer shot many were fawns in the spotted coat. It is possible to find a fawn in the spotted coat in the fall, but to say that many of the deer killed at that season were spotted fawns is absurd.

Even if all his statements were true, I regret that he should have published them. Thousands of hunters read RECREATION, and some, no doubt, will conclude from his article that anyone can come to Michigan, hunt regardless of law, and not be molested. Mr. Stokes would have done better had he laid his information before the game officers of our State, who could, and no doubt would, have brought the guilty parties to justice.

I am a subscriber to RECREATION, and heartily indorse its good work, but I believe if we all would give information to the wardens, instead of advertising the localities where violations go unpunished, we would be doing more to save our wild friends in the woods.

Rufus F. Skeels, Hart, Mich.

AMENABLE TO STATE GAME LAWS.

The game laws of Vermont allow deer to be hunted the last 10 days of October. Can deer be shot out of season on a Government Military Reservation by an officer of the U. S. Army?

Harold M. Hone, Northfield, Vt.

ANSWER.

Military reservations are governed under regulations of the Secretary of War, and in absence of express provisions in the regulations for privileges of this kind, deer or other game can not be killed during the close seasons established by States in which such reservations are situated. The law governing the case is as follows:

30 Statutes at Large, p. 717.

Chapter 576. An act to protect the harbor defenses and fortifications constructed or used by the United States from malicious injury, and for other purposes.

Section 2. That when any offense is committed in any place, jurisdiction over which has been retained by the United States or ceded to it by a State, or which has been purchased with the consent of a State for the erection of a fort, magazine, arsenal, dockyard, or other needful building or structure, the punishment for which offense is not provided for by any law of the United States, the person committing such offense shall, upon conviction in a circuit or district court of the United States for the district in which the offense was committed, be liable to and receive the same punishment as the laws of the State in which such place is situated now provide for the like offense when committed within the jurisdiction of such State, and the said courts are hereby vested with jurisdiction for such purpose, and no subsequent repeal of any such State law shall affect any such prosecution.

Approved July 7, 1898.

A POLICE RAKE-OFF.

During the past week the officers in the city hall have been living on a duck diet. Captain Everts returned from a 3 days' trip, and although he hunted only an hour or 2 he recovered 57 ducks, which he distributed with lavish hands. W. E. Winn, clerk of the police court, returned from a 5 days' trip to Market lake and brought 82 ducks. He said he lost several hundred because he had no dog with him.

Winn says the ducks were so thick he could not see the sun on cloudy days, and in one shot he succeeded in killing 17 birds that he knew of. He might have killed more with the same shot, but he did not succeed in finding them.

Several policemen have signified their intention of taking a few days' vacation and are listing the number of birds they will have to distribute on their return.—Butte (Mont.) Miner.

I wrote Captain Everts, asking if the foregoing report was true, and he replied:

You were correctly informed about my killing 57 ducks. I was not over 2 hours in doing it. Could have done better if I had had a water dog to retrieve the wounded birds. If you have a good water spaniel or Chesapeake pup for which you have no use, just ship him to me at my expense and I will be thankful. Then, if you visit Butte during the duck season, call on me and I will show you how it is done. I remain yours respectfully, hoping you send me a nice thoroughbred dog pup.

Ed. B. Everts, Captain of Police,
Butte, Mont.

I am glad you haven't a dog that will help you out in your miserable and contemptible slaughter of ducks. If I had a hundred I would not sell you one, even if you should offer me $1,000 for it. I would rather send you a vicious bull pup that had been inoculated with hydrophobia so that he might chew you awhile and put you in such shape that the authorities would have to lock you up for the remainder of your life.—EDITOR.

DID NOT BREAK THE LAW.

I am severely criticised by my friends for the article in November RECREATION which makes me out a game law violator. Of course, you understand that the article "An Hour in the Woods" was written in '99, describes a '98 hunt, and has been in your office ever since. The game laws have been changed since '98, and the beginning of the article, "Last fall I was one of," are the words that convey to the minds of readers the idea that I, a warden of the L. A. S., unlawfully killed a grouse and a squirrel. If you had put the article in print at the time I sent it to you, it would have been all right, as it was lawful to kill squirrels and grouse at that time. Now if you wish to do me justice, please state the situation to your readers.

N. H. Covert, Beaver Falls, Pa.

It is true I held Mr. Covert's MS. in my office 2 or 3 years before printing it, and I should have changed the first line to read, "In the fall of '98." I trust this, with Mr. Covert's explanation, may set him right in the eyes of all readers of RECREATION.—EDITOR.

FOR A SMALLER LICENSE FEE.

The practice adopted by some States of charging non-residents a high fee for the privilege of hunting within their boundaries will, I think, meet with more and more disfavor as time goes on. Many sportsmen can not afford to pay $25 or $40 for a few weeks' hunting, yet, in this free country, they are as much entitled to a share of sport as are their wealthier fellows. Moreover, when a man has paid a big license fee, he is likely to recoup by killing all he can. Under a license law it is harder to interest the farmers in game protection; they think the rich man has already too many special privileges. If this thing continues the poor will turn poachers and get their share despite the law. It would be wiser and more fair to exact a small fee, say $5, from residents and non-residents alike, and devote the money to the protection and propagation of game.

J. H. Fisher, Jr., Baltimore, Md.

CAMP COOKERY.

You ask for some good recipes for camp cooking. Here is what I call "camp de-

light": Dig a hole 3 feet in diameter, 2 1-2 feet deep, and prepare enough small logs and chips to fill the hole with hot embers. Slice bacon as thin as possible and place a layer over the bottom and around the sides of a Dutch oven about 12 inches in diameter. Slice venison medium thin and put in to the depth of 2 1-2 inches, salting each layer. Chop a large onion and sprinkle over the top, cover with another layer of bacon and one pint of water and put on the lid. Fill the hole half full of hot embers, place the Dutch oven in the center and fill the hole rounding full of embers. Cover all with about 6 inches of dirt and go to bed. Next morning dig in.

W. H. Long, Walden, Colo.

GAME NOTES.

I saw in November RECREATION your comment on the tender of a lumber camp having to take to a tree to keep away from an elk. I do not know much about elk in the woods, but for the next 3 months I don't think you would care to go into W. C. Whitney's elk pasture without having a tree handy, for the old bulls are ready for business every time. Whitney's place is about 8 miles from my place, and the last time I was there was in August. I took snap shots at some of the elk. There are about 100 altogether. He also has about 20 buffalo and 20 or more blacktail deer. When I was there the buffalo and deer were in the woods, it being hot weather.

W. T. Cross, Becket, Mass.

Game protection in this State has made great success recently. An association has been formed in Los Angeles county, and it has done some good work so far. Other associations have been formed in other counties, among them Orange and San Joaquin. I was much pleased to see the League signs along the trails while on a trip to the West Fork last summer. The general attitude of the mountaineers seems to be against the hog, and while they kill some game out of season they rarely kill a doe or a quail with young. Quails are more abundant than for years before; due to the short open season for the last 2 years. We had but 15 open days in this county last year.

W. R. Jackson, Pasadena, Cal.

I have just returned from a 6 weeks' hunting trip, in company with Mr. Porch, of this city, in the Jackson Hole country, Wyoming. We hunted in the Shoshone mountains, at the head waters of Grey Bull, Buffalo, Pacific and Atlantic creeks, Yellowstone river, at Two Ocean pass, in the Gros Ventre mountains, at the head of Fall river, in Hoback basin, and at the head waters of Gros Ventre river. We had a delightful trip and a successful hunt, getting bear, elk, antelope and sheep. We went out with S. N. Leek and Charles Wilson, as guides, and were in the mountains just 30 days. I now have a nice collection of the game to be found in that section of the country.

J. M. Murdock, Johnstown, Pa.

We have had much rain in this locality. If it keeps up a little longer the chances for a good duck season are favorable. All the lagoons are flooded and some cover an area of a mile or more. The water is shallow and the bottom muddy. The great variety of water plants which grow in them afford inexhaustible food for thousands of ducks, coots, rails, etc. For the well equipped hunter this is a paradise. Alligators, jutias, wild hogs and birds abound. The climate is deliciously cool and the scenery beautiful. Keep up the fire against the biped swine until all are exterminated.

O. A. Fischer,
Trinidad, Cuba.

I wish to call the attention of readers of RECREATION to the good grouse and rabbit shooting in this locality. In no other place in Sullivan county is such game more plentiful. Sportsmen can get good accommodations at moderate rates at hotels or farm houses. This town is 12 miles from Calicoon, on the Erie, stage fare 75 cents, and the same distance from Monticello, N. Y. There are also numerous lakes here well supplied with bass and pickerel. In the trout season many fine fish are taken from streams in this locality.

Chas. P. MacDonald,
Late Capt. and Asst. Surg. U. S. V.,
Jeffersonville, N. Y.

If a person baits a clearing in the pine brush with grain for the purpose of attracting doves, is it sport to hide in the surrounding bushes and slaughter 8 or 10 of the feeding birds with each barrel? Is the one who does such shooting a sportsman?

G. H. Hollingsworth, Lansdale, Pa.

No, he is not a sportsman. He is a low down game hog of the coarsest and most vulgar type. How many of the readers of RECREATION agree with me in this?—EDITOR.

There is but little game here, though up to 2 years ago grouse were plentiful. We have a game hog, one Sherman Tunison, who shoots for market. He drives 12 to 20 miles a day, scouring the country and

potting birds on the ground or wherever he can get them. There should be a law to prevent the sale of game.

J. M., Townsendville, N. Y.

Why doesn't someone fill that fellow full of buckshot while he is engaged in this dastardly work?—EDITOR.

Outside the club properties there is no goose shooting worth mentioning to be had at Currituck, except in spring. I am greatly pleased to see the increase in birds in this section. There is a most surprising number of gulls, considering the slaughter of 3 years ago. Last spring there was considerable illegal shipping of ruddy ducks. I propose to have that stopped this year if possible. This county is fairly alive with deer and bear.

A. S. Doane, Waterlily, N. C.

Special State Game Protector Furnside arrested an Italian, named March Domenich, in Glenville, on Sunday, for shooting robins. Justice Dutcher fined him $10 or 10 days in jail. The fine was paid. The League of American Sportsmen intends to push all violations of the forest, fish and game laws, and offenders will be dealt with severely.—Exchange.

Here is one more robin shooter who has had a lesson in law. It may take a long time to educate all of them, but we shall keep our law school open and hope to graduate them in time.—EDITOR.

The law prohibiting the sale of game in our State shows its good effect already, for at no time in the last 10 or 15 years have ducks and prairie chickens been so plentiful. The law is being enforced most rigidly, and people are beginning to awaken more and more to your teachings and to understand more fully the value of laws protecting our game.

H. G. Anderson, Norseland, Minn.

In a lumber camp at which I spent a few days recently, and which was situated near a beaver pond, the men were continually seeing beaver in the daytime. One old fellow actually disputed the way with a chopper who happened to be in one of his roads. He put up such a scrap that the man had to turn out and give him the right of way.

W. S. Steward, Monson, Me.

Two Philadelphia men who spent 6 weeks hunting in the country North of here report finding at Fish lake, Cottonwood creek, Mount Lydia and Brook's lake carcasses of elk with nothing but the teeth removed. Nelson Yarnell, the well known guide, recently captured a fellow with 26 sets of elk teeth in his possession.

Al Davis,
Fort Washakie, Wyo.

Was in camp 40 miles from Shelburn with Mr. D. B. Frost and his father. We were in the woods 15 days and killed 2 large bull moose. October 4th I took a party of 4 to a place 30 miles from here. During the trip I called up 6 bull moose. We got 3 bulls and a cow.

W. J. McKay, Guide,
Shelburn, N. S.

There is not much large game here. We have, however, many quails, prairie chickens, rabbits and squirrels, and a few ducks. There are numerous bevies of quails within ½ mile of town. We have no fish; they have all been seined or dynamited.

George Glass, Perry, Ia.

I have so far posted between 6,000 and 7,000 acres in this vicinity. My scheme is working nicely. I no longer have to ask farmers if they will post their land; they come or write to me for posters.

W. S. Mead, Woodstock, N. Y.

There are plenty of quails in this new country. Turkeys and prairie chickens are found in some localities.

W. I. Lacey, Anadarko, Okla.

We have a fair number of ducks and geese. All other game is scarce.

G. A. Savage, Meredith, Kan.

It is not too early to begin planning your summer vacation. Where will you spend it? If you expect to camp out or to take a canoeing trip, a tent is the first necessity. I can send you, as premium, one of almost any size you may wish on the basis of one yearly subscription to RECREATION for every dollar of the price named in manufacturer's list. Write me for further particulars and begin taking subscriptions at once. The manufacturers have time now to fill orders. If you delay until their busy season opens, your entire vacation may be spoiled by an unavoidable delay in the shipment of your tent. By having everything ready for a prompt start you will enhance the pleasure of your trip tenfold. Send in your club at once and I will do the rest.

"In all my life," she said, with a sigh, "I have seen only one man I should care to marry."

"Did he look like me?" he carelessly asked.

Then she flung herself into his arms, and wanted to know what secret power men possess that enables them to tell when they are loved.—Chicago Record-Herald.

FISH AND FISHING.

TWO MINNESOTA PORKERS.

Sidney J. Huntley, editor of the Dassel *Anchor*, has proven himself a good fisherman as well as a genial editor. On a recent fishing expedition to Washington lake he succeeded in catching 79 fish, bass and pickerel, none being less than 2 pounds in weight, and the total catch weighing 250 pounds. Several of the fish were sent to the *Tribune* office as evidence of the good fishing that is to be found at Washington lake.—Minneapolis *Tribune*.

DEAR SIR: I am informed that you recently caught 79 pickerel and bass, in one day. Will you kindly tell me if this report is correct? G. O. Shields.

Dassel, Minn.

It is true we caught 79 fish, not pickerel, but wall-eyed pike and big mouth black bass. Dr. W. E. Tryon and I were hunting ducks at Washington lake, 2 miles West of Dassel. Didn't go out to fish, but just as we were starting for camp threw 2 cane poles on the wagon, and it proved the redeeming feature of our 4 days' camp. Saturday afternoon, about 4 o'clock, we took the poles, and catching some live frogs, rowed out to Big Fir Point, and letting the boat drift along until we got a strike, we dropped anchor and proceeded to pull them in. Beauties every one, more pike than bass, but enough of the latter to make a good showing. One black bass weighed 5½ pounds, and 6 of the pike tipped the beam at 5 to 6½ pounds each. The largest pike were caught after the moon arose. That was a new experience for me, for never before have I fished with hook and line by moonlight. We quit about 7 o'clock with 79 fine ones in the boat, none smaller than 2½ pounds, and they were biting almost as fast as we would cast when we quit. Quitters, you may say? But Mesdames Tryon and Huntley were halloaing that supper was getting cold. We went out Sunday morning, brought the total string up to an even 100, and came back to town with the record of the season. Less than 5 hours' fishing and all landed with ordinary lines, common cane poles, and without the aid of a landing net. Our catch would have been much larger had we had a landing net, as we lost some beauties, and, as usual, of course, the biggest one got away. It was great sport, and I only wish I could have got a photo of the string to send you.

Sidney J. Huntley.

And you a newspaper man, too! You should have known better, but you seem as densely ignorant of the laws of decency as any Norwegian farmer in your State could possibly be. Of course you used "poles." No such vulgar swine as you ever use rods or reels or landing nets. They all fish by main strength, and for "records," as you did. And here's your record. You are low, degraded bristle backs.

I, also, regret you did not have your pictures taken, so I could have made you still more conspicuous.—EDITOR.

HERONS AND KINGFISHERS.

Monson, Me.

Editor RECREATION:

Noting the arrest of Fred Veno for shooting 2 blue herons, I should like to read a discussion of the above named birds by sportsmen and naturalists in regard to the advisability of their protection. Last winter the laws of Maine were changed so as to protect these birds, as well as some others which were not protected before. Now, I, together with guides and others in a position to observe, consider this a sad mistake.

To illustrate: At Rangeley last summer I was much interested in the trout and salmon hatchery in that place, and used to visit it often to mark the progress of the baby tackle breakers. Everyone who has had anything to do with raising trout knows the aggravating dwindling down and gradual reducing of the numbers which hatch out, from causes as yet unknown and unavoidable. However, as the season advances those in charge begin to count on a certain per cent. of healthy, lively youngsters to liberate in the waters where sportsmen do congregate. At Rangeley a fair per cent. had reached the 2 or 3 inch stage. A large sum of money and vast care and patience had been expended to bring them to that stage. One Sunday in the fall, on visiting the hatchery, not having been there for some time, I was surprised to find some of the troughs empty, and all had suffered more or less.

"What has caused this?" I asked.

"Oh, herons and kingfishers," said the keeper; and they were powerless to prevent it, as the birds were protected by law.

"The herons are by far the worst," said he. "They come in the dark when no one is around, alight in a trough and gobble down a quart or so of the little fellows at a time."

It is a shame that, after the young trout get along so far, they should be gulped down in that fashion by that homely, no-account bird. What took place there we have every reason to expect takes place in all the small streams where trout are

accustomed to spawn naturally. Is it any wonder trout do not increase so fast as they ought to by natural means? It seems to me that this protection of their worst enemies was a great mistake on the part of someone. What do you think, Brothers? Has anyone anything to say in defence of these birds? To me it would seem far wiser to put a bounty on them.

W. L. Steward.

CAMPING AND TROUTING IN COLORADO.

Galena, Kas.

Editor RECREATION:

I spent last summer in Colorado. Having fished the sources of the Arkansas river and the Eagle river from Red Cliff toward Glenwood some years ago, I decided to try the Southern portion of the State. Therefore I took a ticket to Wagon Wheel Gap for my wife and myself.

Arrived at our destination, we were soon dressed for the day's sport with the trout. Our first fishing was in Goose creek, a branch of the Rio Grande. The stream is 15 to 30 feet wide. We first strung 3 flies; a coachman in the lead, a professor next and a grey hackle for the top. The flies lit gracefully in the ripple. Zip! went the reel, and in a few seconds we brought to creel a beautiful rainbow trout. We continued along up the stream, took a rainbow, then an Eastern brook, and then a native mountain trout. When they ceased biting we found we had 16 beautiful trout.

Our first day was repeated almost every other day for 4 weeks; some days we met better success than on others, but in all it averaged nicely and was enough to satisfy. We found some genuine sportsmen, and only occasionally came across the detested fish hog. A person fishing those waters does not need a large assortment of flies. The coachman is the favorite, the grey hackle next, then come the professor and cowdung.

Last season there was a good number of campers all along the Rio Grande, from Wagon Wheel Gap down the river for 6 miles. Fishing at Wagon Wheel is not so pleasant as in the small creeks that empty into the Rio Grande. Besides the fishing at Wagon Wheel there are other interesting things, especially the mountain climbing. The drive to Creede, 10 miles, is charming. The hot soda springs are located near the hotel, 1½ miles from the station. They are considered as good as any. The water is about 135 degrees Fahrenheit. The climate at Wagon Wheel is cool. During July, so scorching in the East, there was a white frost on the board walks about the hotel nearly half of the morning.

S. N. Dwight.

ONE DAY'S JOY.

I was 12 years old that summer and the most enthusiastic angler in the place, often going out 3 or 4 times a week, and catching possibly one trout for every half dozen trips. That did not discourage me, but rather made me more anxious to get a big fellow.

That particular day dawned dark and cloudy; just the kind for July fishing. Fred had started out ahead of me, and when I stopped to catch grasshoppers for bait, there he was by the brook, shouting to me, and holding up a 9 inch beauty to show me he knew how to fish. I decided right there that I would catch a 9 inch trout, or camp out till I did. After walking up the road about a mile and a half, I struck over to the stream toward one of my bunks. There was a sharp turn in the brook. The mountain came right down to the bank at that place, terminating in a great rock, around which the water rushed. I hadn't been there long before I got a prize. He was the largest I had ever caught, but my cup of happiness was not quite full, for he lacked an inch of what I wished to get. After rebaiting the hook with a choice yellow grasshopper, I cast into the rapids. The hopper floated down to the big rick, passed it, and then with a rush and a splash it was gone. I gave one great, excited pull. Out came a glistening trout, and lay flopping at my feet; but not for long. The softest ferns were none too good for such a king, and I took many a peep at him as he lay in my creel. I fished down stream and got one more, not quite so large as his predecessor. I thought they made the handsomest pair I had ever seen. As soon as I reached the hotel they were measured. The largest was 9½, and his partner 9 inches.

Fred came in with his solitary trout, but when he saw mine he said nary a word, and never crowed over me again that summer.

H. G. Hutchinson, New York City.

1,450 TROUT.

The most remarkable catch of trout of the season was made at Green river last week by W. A. Kuepferle, William Felitz, James Collins, George Orth and Ace Sweesey, all of Seattle. Altogether they succeeded in landing 1,450 fish. The largest weighed 1¼ pounds. Mr. Felitz says: "Everyone laughs when we tell of that catch, but it is true, nevertheless."—Seattle (Wash.) *Times.*

When a subscriber sent me the above clipping I wrote the men mentioned therein, asking if the report was true. Their replies follow:

You were correctly informed regarding our catch in Green river.

W. A. Kuepferle, Seattle, Wash.

The report is correct.

Wm. Felitz, Seattle, Wash.

Your informant is wrong. We caught 550 fish in 5 days. Not bad for 5 people, but respectable. G. Orth, Seattle, Wash.

Why don't you fellows try the codfishing industry? It is a decent calling; eminently respectable, even, when compared with hogging trout. With your ability and a winch you could pull up several quintals of fish a day. Then when you reported your slaughter no one would laugh. No one would call you dirty fish hogs, either.—EDITOR.

NIBBLES.

I had but little of my favorite sport last fall, but one day Cooper Anderson, Dr. Washburn and I took a trip to Trout lake after ducks, and killed 12 teal. Trout lake is a beautiful little body of water about 20 miles from Telluride. It was once filled with trout, but dynamite, nets, etc., have done their deadly work, and now there are few fish there. But the beautiful scenery remains; even the fish hogs can't destroy that. I preached a sermon on game destruction, and now both of my companions are subscribers to RECREATION.

I have shot a few mountain grouse, but they are getting scarce. Some deer have been killed in the neighborhood, and I hear occasionally of a bear being seen. There is a fine band of mountain sheep within 10 miles of town, but they are protected by law.

The sentiment here in favor of protecting game has been weak, but with a dozen RECREATION subscribers now standing up for the law the sentiment will grow stronger. C. M. Coleman,
Telluride, Colo.

I caught my first large fish at Wolf lake, Indiana, a small pond well stocked with pickerel and about 15 miles Southeast of Chicago. We left home at 2 o'clock one morning, 3 months ago, with our outfit and a sufficient quantity of grub. After arriving at the boat house and arranging for a boat we went down the inlet about 2 miles. There we cast for nearly an hour, without success, the weeds being so thick we could scarcely move the boat around. After leaving that location we met with better luck, and my friend H. landed our first catch, a 7¾ pound pickerel.

He had no sooner placed it in the live bag than my old Bristol bent nearly double. I was so excited I could scarcely stand up in the boat. H. took the rod from me and after playing the fish over half an hour, among thick weeds, succeeded in getting him safely in the landing net.

That was enough for me, a 14 pounder! I was so overjoyed that I could fish no longer. Frank Stick, Chicago, Ill.

Fishing was good here last season, beginning with large mouth bass in the spring and through the summer, great Northern pike (pickerel) and small mouth bass in the fall, blue gills and perch at all times. Frank Vrooman and Cate Walker are good guides. While out fishing recently with my cousin, Robert B. Buell, of this place, I got a strike from a fish near the boat and gave him line. At the same time my cousin threw his bait out near mine and got a bite. The lines both began to run out, and finally I struck my fish. When I began to reel him in we found the other line snarled with mine. After a few minutes' fight I succeeded in getting a 3 pound small mouth bass into the boat and found he had swallowed both minnows and was securely hooked in the gullet with both hooks. Did anyone ever have a similar experience? W. B. Halcomb,
Lake Geneva, Wis.

I was at Avalon, Catalina Island, last summer. That is the true home of the game fish, likewise of the fish hog. The Tuna Club is doing much good in encouraging sportsmanlike methods by offering prizes for record fish caught with rod and reel. Many fishermen simply play their fish until alongside the boat and then let them go. The yellowtail, a fish of the salmon family, is the one most sought. It is a hard fighter and weighs 8 to 50 pounds; the average being about 14. I caught 4 yellowtail that weighed 13½, 14½, 16 and 16½ pounds; also a 22 pound shark.

W. R. Jackson, Pasadena, Cal.

With my friend G. W. Huddleston, of New York, I have enjoyed 3 delightful summer outings near Deerwood, Minn., 105 miles West of Duluth. That portion of Minnesota has innumerable lakes, gems of beauty, teeming with fish and environed by forests of pine, oak, butternut, birch and elm. Our camp was especially attractive in being near a splendid spring of cold water. My friend is an enthusiastic and successful fisherman, and hopes to spend many more summers in the same spot. L. H. Woodin, Norfolk, Va.

An eel was recently taken, down at the East end of the sound, by one of the keepers of the Little Gull light, off New London, in a lobster pot. It weighed 14 pounds and was 4 feet 9 inches in length. I have always lived around the water, and have heard of eels that weighed over 6 pounds, but that one put them all in the shade.

E. M. Leete, Guilford, Conn.

GUNS AND AMMUNITION.

Anybody can keep on shooting all day, but it takes a gentleman to quit when he gets enough.

A HEART TO HEART TALK ABOUT GUNS.

Red Lodge, Mont.

Editor RECREATION:

I see many sportsmen continue to praise small bore rifles. I have used nearly all kinds, from 22 to 50-100-450. At present I use a Stevens' 22 extra long for big game as often as I do my 25-35 or 50-100-450; but I never shoot at an animal with it unless I am sure I can place the ball where I want it. I do not wish to cripple game and have it escape to die a lingering death. My experience of 19 years as hunter and guide in regions where big game abounds convinces me that the 45-70-405 and the 45-85-405, both of which can be shot from the 45-90-300 Winchester, are the best all around cartridges for large animals.

I have shot elk, big horn and bear through and through with the 30-30 and the 30-40 U. S., and if the ball did not strike a bone or a vital spot, the game would run a long distance. Moreover, it would often escape entirely. Often I have trailed animals so shot one or 2 miles without finding blood; and some that I finally found required one or more shots to finish them.

Some say if you hit the animal in the right spot any caliber is fatal. True; but how many can hit the right spot? I have had many queer experiences bearing on that point. I was once camped with a party at Sulphur Springs in the Beartooth mountains. Two of us started on horseback to get an elk. We found a large bull near camp, lying with his back toward us. My companion dismounted, dropped on one knee and fired with his 45-70. The elk jumped up and ran at least 150 yards, struck a pine tree 5 inches in diameter, broke it off and fell dead. The bullet entered back of the left shoulder, went through the heart and out ahead of the right shoulder. The hole through the heart was almost large enough to thrust one's fist through.

At another time I was camped on Slough creek with a man from St. Paul. One morning while yet in bed we heard a noise like the braying of a donkey. We grabbed our guns, jumped out and stood face to face with a 6-point bull elk. He was about 20 yards from the tent, looking at it over his shoulder. My companion fired his 45-90 and the elk ran. We followed the animal 100 yards and found him. He, also, had struck a tree, head on, and fallen dead. The ball had gone through the heart, lodging against the skin of the opposite side.

Someone signing himself "Syracuse" questioned the probability of some heart shot stories I wrote in a back issue of RECREATION. He characterized them as "fishy" and said medical men claim that if the heart be punctured even with a needle, it causes paralysis and instant death. Perhaps the following story, will be easier for "Syracuse" to digest:

I was guiding a party, one of whom was C. E. Hibbard, of 308 Delaware street, Kansas City, Mo. We were all in the saddle with the pack train close behind. Our meat supply was running short, and when we saw a deer ahead I told the sportsman nearest me to dismount and shoot. Before he could do so the deer was off. I sprang down and took a flying shot with my 30-30 Winchester. The deer ran 150 yards, stopped, looked at us, turned, ran 100 yards farther, and out of sight behind a rise of ground. When we came up it was dead. The 30-30 ball entered the shoulder. Beyond that we could not trace it until we came to the heart, or rather, to what was left of it. It was a mere mass of bloody pulp that would not hold together while we removed it. The liver was in the same condition. The ball on striking the shoulder had separated into what was practically a charge of shot. I followed back the tracks of that deer, step by step, to where he was shot, and not a trace of blood could I find.

After taking my last hunting party to the railroad I was driving home with my wife and a load of provisions. It was snowing a little on old snow, and I saw where a small bunch of deer had just crossed the road. It was the last day of the open season, and as I had not killed any of my legal allowance of game, I determined to make the most of my opportunity. Taking my wife's 22 Stevens' Favorite, the only rifle I had with me, I followed the trail 100 yards or so into some thick burnt timber. Presently I saw a deer running, 75 yards ahead. I fired, and, without waiting to see the result, put another cartridge in the gun. Looking up, I saw, as I supposed, the same deer still running. I fired again, reloaded, fired, reloaded and fired the fourth time. I put a fifth shell in the rifle and, after waiting a moment, walked to where I last saw the deer. I found one large buck and 2 fair sized does lying within 10 yards of one another.

Near by was another trail, and, knowing the 22 seldom spills blood, I followed the track. Within 30 yards I came on a large doe, dead. In all 4 the bullets had passed either through the heart or very near it.

I have since killed 3 bucks with the same rifle with one shot each. My wife, also, killed a large bull elk with the little gun. The ball went through shoulder, heart, broke a rib on opposite side and stopped against the skin.

The rifle whose work I have described has a somewhat remarkable history. Before I tried it on large game and while shooting at a target, a ball became lodged in the barrel, about 2 inches from the muzzle. I blew it out with another cartridge, and in doing so swelled a well marked ring in the barrel where the first bullet had stuck. Later, while driving with the gun leaning against the dashboard, a sudden bump threw the rifle out and 2 wheels passed over it, bending the barrel badly. When I got home I dismounted the gun, knocked off the sights and threw the barrel away, intending to send for a new one. I neglected to do so, however. After the old barrel had lain outdoors several months, I chanced to speak of it in hearing of my father. He said he had often straightened bent crowbars by striking them over a log, and suggested that I try that plan with the barrel. I said he could strike 1,000 bent gun barrels over a log without making one straight enough to shoot with. Nevertheless, to humor him, I hunted up the old barrel and tried my luck. Two blows so much improved it that I could see through the bore, which before had been impossible. I continued whacking the barrel on a log until it appeared perfectly straight. I put on the old sights, lined them by my eye, and getting some cartridges tried the gun. To my surprise, I put 7 consecutive shots into a spot the size of a dime, at 15 paces. No alteration has been made in the weapon since, and my father never sees it without reminding me that what is good medicine for a crowbar may be equally good for a gun.

E. E. Van Dyke.

THEY STILL WRITE TO PETERS.

Philadelphia, Pa.

Messrs. Peters Cartridge Co.,
Cincinnati, Ohio:

Dear Sirs:—I have read in RECREATION the correspondence which has passed between yourselves and the editor of the magazine, and I trust you will pardon me if I say that in my opinion you are on the wrong track. You will probably remember that P. T. Barnum once said, in effect, it didn't make much difference how you became known, the main thing being to get your name before the people. It seems to me that an occasional adverse criticism, with its attendant host of letters refuting it, is about the best sort of advertisement one can get, both because it is all free, and because it is placed in the reading pages, where everybody will be sure to read it.

Supposing this man Radcliff had not written the letter in question, but had told a friend, and that friend had told another, and so on and so on. You would never have had the chance to contradict him, would you? But when he comes out in print, it gives your friends the opportunity to call him down hard, and with such positiveness that every reader of the magazine is convinced the first chap didn't know what he was talking about.

Sportsmen, as a rule, are only too anxious to tell about their favorite weapon, ammunition, etc., but if you were in doubt as to whether your unknown friends would defend you, how easy it would have been to drop a line to a few you do know, asking them what their experience had been with the gun and shells in question, and suggesting that they write RECREATION direct, telling what they knew. RECREATION would have printed every such letter, for it is the policy of the magazine to print sportsmen's opinions, no matter what they are; and you would have received a vindication, and an advertisement that money couldn't buy.

I trust you will pardon this letter, but I am both a sportsman and an advertiser, and, as I said before, I think you distinctly in the wrong. As a last word, the controversy has had this effect on me: I shall buy some of your shells in the near future and try them in my Winchester repeater. If they do not jam, I shall be sure to write RECREATION to that effect.

Yours truly, E. Wager-Smith.

Vincennes, Ind.

The Peters Cartridge Co.,
Cincinnati, Ohio:

Dear Sirs:—I noticed in RECREATION a statement to the effect that your shells have so little rim they can not well be used in the Winchester repeating shot gun. Being interested in guns and ammunition and regarding the correspondence pages of RECREATION as an open forum in which persons of similar tastes are free to discuss questions of this kind, I expected that you or some of your friends or customers would meet this statement either with a frank admission that your shells were not adapted to that particular gun or with an explanation showing wherein the first correspondent was mistaken. On receipt of the next number of RECREATION I was much surprised to find that your only reply was the withdrawal of your advertisement. I have neither the wish

nor the right to find fault with your methods of doing business, but I may be permitted to remark, as an impartial outsider, that denouncing all criticism of your products as manifestly false and malicious may be a manly and independent way to answer a critic, yet it is scarcely a satisfactory and businesslike way to treat prospective customers who consult a sportsmen's magazine for information concerning ammunition. I feel sure your products will stand the test of a free discussion by their users, but your action in this matter does not strengthen this belief. As a timid man I should hesitate about making purchases of a firm whose salesmen, instead of making a civil explanation of an article's merits or defects, promptly kicked a critical or ignorant customer out of doors. I take the liberty of addressing you in this way merely to show you how your action looks to disinterested readers of RECREATION, and I trust you will receive this letter in the friendly spirit in which it is written.

Yours truly, Angus Gaines.

Gouverneur, N. Y.

Messrs. Peters Cartridge Co.,
Cincinnati, Ohio:

Dear Sirs:—I have read the correspondence between your representative and the editor of RECREATION. I judge your advertising manager is a sedentary dyspeptic and consequently irascible and unreasonable. Mr. Shields is president of the L. A. S., a society which, through RECREATION and its members, is doing much to protect game, birds and fishes throughout the United States. The withdrawal of your patronage means limiting to that extent the facilities of RECREATION to prosecute the work in which it is engaged for the benefit of all. As a member of the L. A. S., and a staunch supporter of Mr. Shields in his good work, I feel it a pleasurable duty to thus express to you my strong disapproval of your conduct, and to claim before you that you are allied with the game hogs, since you are opposed to Mr. Shields. I trust all the sportsmen in the country will, by withdrawing their patronage from you, make you see yourself as others see you. Yours respectfully,

Dr. B. W. Severance.

Stony City, Iowa.

Peters Cartridge Co.,
Cincinnati, Ohio:

Dear Sirs:—Have read RECREATION'S article on your withdrawing your advertisement from its pages, and think your reason for so doing is far from sufficient. I have used your shells for 6 years past, and have read RECREATION only 3 years. My admiration for the little magazine that is putting up such a gallant fight for game protection is great, and I believe the sportsmen of the country generally will disapprove of your action. Let us see your advertisement back in the journal next month. Respectfully,

W. A. Kelley,
Secretary Stone City Gun Club.

HINTS TO THE REMINGTON PEOPLE.

Much valuable discussion has lately been indulged in regarding the symmetry of the Remington rifle, and attributing its failure in popularity to that point.

This is not the case, for their long range target rifle, with pistol grip and checkered stock of fine wood, was never surpassed in appearance by any rifle, and it is equal in beauty to its far famed rival, the Sharps, "the champion of the world."

With the Sharps, the Remington shared the championship of the world, for they both helped win the greatest and last great international matches ever held—Wimbledon, Dollymount and Creedmoor.

The Remington people at one time possessed the finest machinery for rifle making in the world, and rose to the height of popularity with their production; but success and popularity, aided by the marksmen of the country, made them conceited, and feeling they alone were the authors of the success of their arms, they refused to assist the men who made their record possible by such guns as these men requested. Their position was, "Take the stereotyped gun we make, or nothing." The consequence was natural. Sportsmen dropped them and took other arms. The Remingtons, instead of losing their place by unsightly finish, lost it by lack of courtesy.

Lately they are much more courteous under new management, though I fear it is too late to regain their old place, even with that most excellent and most beautiful repeater, the Lee Remington, which they now place on the market.

The Stevens Co. is fast gaining popularity by its willingness to help sportsmen; and Mr. Barlow, of the Ideal Company, will tell you it pays to cater to their judgment. Sooner or later several of our large gun and revolver manufacturers will receive the Remington lesson. Among the latter are the Colt and S. & W. people, who believed nothing could supersede them because the Government was partial to their product; and a severe setback the Colts received when the Government refused their automatic pistol. In their arrogance they believed this impossible. Inroads are rapidly being made on their popularity by courteous rivals, because of the arrogant stand of the Colts and the insolent treat-

ment sportsmen receive who request of them something special.

I hold letters of refusal from both these concerns for special work.

E. E. Stokes, New York City.

I thank Jack Pattern for his kind words about my favorite, the Remington, even though he condemns my taste in gun mounting. The No. 5, whose beauty he so strongly approves, I have not been so fortunate as to see. It is one of my few lingering hopes to own a Remington-Lee 30-30. I see that condemned by some sportsmen as lacking penetration and shock at long range. That does not disturb me when I remember that if it possesses the power to put a bullet farther than another weapon of similar caliber it must have, also, the momentum to shock proportionately.

I recently tried my No. 3 against 2 younger men, one of whom carried a Stevens. Although I am nearly 60 I did not have to hide when the day was over. The grand old No. 3 showed itself equal to all requirements, and although its owner has been shattered by 24 years of asthma, and was also handicapped by blindness, it hugged the bull's eye all the while, and finally drove a clean center. I have a new reloading kit from the Ideal company, and intend to buy a telescope sight, which will give me a new lease, maybe, on my eyes. I advise young sportsmen to get an Ideal reloading outfit. It will cheapen ammunition and extend the range of experiment.

I used King's semi-smokeless powder, which proves itself a jewel for the sportsman. I want to try Laflin & Rand's smokeless once, and if the Robin Hood Co. ever gets out a rifle powder as good as their shot gun solid gas, it will find its way to the chamber of honest No. 3 at once.

Let someone who has tried No. 5 in the field, or the Remington-Lee at target or on game, give his experience. Why should all the Remington disciples "go 'way back and sit down?"

W. H. Nelson, Washington, D. C.

FREAK SHOTS AND THE SAVAGE RIFLE

Writing of what he considers a fault of the Savage rifle, M. L. Parshall tells, in October RECREATION, of seeing a buck shot in the head with that gun. The bullet struck the skull and flew into bits without penetrating the bone. If the buck was not secured, who knows what the bullet did? Again, in the case of the deer that escaped after being "hit squarely in the shoulder," how does Mr. Parshall know where it was hit?

All who have hunted much know how easy it is to be mistaken in such matters. A friend, hunting with a Savage rifle, fired at a small buck. The animal fell, but got up again and ran. A second shot killed it. Then it was found that the first shot, which had apparently knocked the buck down, had merely cut a crease in the hair of the neck, without even touching the skin.

One of a party of hunters fired at an antelope on a hill half a mile away. The animal jumped up and ran out of sight. One of the party followed and found it dead within 100 yards of where it had been shot. The bullet struck just behind the foreleg and came out at the brisket. At no point in its course was it more than an inch below the skin. And it was fired from a Savage, too.

One of my friends was hunting with his brother. One carried a Savage; the other a 45-70 Ballard. They saw a bunch of antelope and fired together, both scoring. The 45 bullet hit just behind the shoulder, yet the animal lived 15 or 20 minutes. The Savage hit an antelope in the fleshy part of the thigh, passing out through the opposite flank. The 'lope ran a short distance, but was dead when found.

I shot at a deer in thick cover which hid all but a small part of one hip. The bullet cut the bone of the tail, an inch from where it joined the body, paralyzing the deer so it could not get away.

From all this I conclude that it is hard to tell beforehand just what a bullet will do; but I am satisfied there is no gun more deadly than the Savage.

If Mr. Parshall wants to find how little resistance is required to expand a soft-nosed bullet, let him suspend 25 or 30 sheets of wrapping paper an inch apart by a string. Fire through them and note the size of the hole in the last sheet.

In shooting at a running deer about 100 yards distant, I always try to hold on his shoulder and fire just as he strikes the ground after a jump, or hold a little high on his neck and fire as he rises from the ground.

W. B. Parker,
Pony, Mont.

In October RECREATION M. L. Parshall finds fault with the Savage. It appears the only fault it has is with the ammunition. I believe if soft point bullets were made with a thick jacket around the base, or at least around the middle, they would spread only on the point no matter how big a bone was hit. The only thing I should like to see changed in the Savage is the finger lever. There is too big a space between it and the trigger, and I find it a little awkward to close when operating in the shoulder position; it seems too near the shoulder and too nearly horizontal. Can you tell me if the Savage Arms Co. won any prizes at the Buffalo Exposition?

Gordon Sproule, Montreal, Can.

In October RECREATION M. L. Parshall says one fault of the Savage rifle is that its soft nose bullets when striking a bone, such as the skull of an animal, will not penetrate, but fly to pieces. Soft nose bullets fired from any rifle will do the same under similar conditions. The fault is not with the rifle, but with the rifleman; he should choose a more favorable mark than the skull. I have used all the latest models of high power rifles, and think the Savage the neatest, strongest and most accurate of all. L. D. Bailey, Lead, S. D.

THE PROOF OF THE PUDDING.

The Marlin proposition strikes me as so extraordinary that I must express my opinion of it. It seems almost incredible that such a firm should attempt to adjust a real or fancied grievance by striving to undo the good work achieved by RECREATION and the L. A. S. That is where they hit me hard; though I do not think they could do it with one of their rifles, especially if they had to shoot more than once; for judging from the many criticisms I have heard for years past it would probably balk and give me time to make myself scarce.

Every fair minded man must realize the vast amount of good that has been done by RECREATION and the League. Sportsmen, it is up to you. Give G. O. Shields the encouragement and support, both financial and moral, he so richly deserves for his perseverance, nerve and ability as a protector of game. Get your friends to help, too, and show Mr. Marlin and others of that ilk that they have another guess coming. The Marlin people are foolish in attempting to do up the L. A. S., for that is what it amounts to when they attack the official organ of the League, and sportsmen will not stand for such a play.

As I size this proposition, it seems Mr. Marlin brought suit against G. O. Shields and it was thrown out of court. That should have ended the matter. But Marlin then accuses Shields of having killed too much game 25 years ago and calls him the "hog of game hogs." We will admit, by way of argument, that Mr. Shields did kill more game 25 years ago than he should have done. Most of us would have done the same in days when game was plentiful and no one thought it could be exterminated. Then Mr. Shields, that slaughterer of game, according to Marlin, after pleading many years in books and magazine articles for moderation in game killing, conceived the idea of publishing a magazine demanding the protection of game animals, fish, birds, forests, etc. If Mr. Shields ever did kill game indiscriminately (which I doubt), he has been the cause of saving many lives of game animals and birds for every one he has taken.

Brother sportsmen, do not judge a man by what some sore-head says he has been; judge him as you find him. We certainly know what our champion is to-day and what he has been for years past. Follow his advice as laid down in RECREATION and in by-laws of the L. A. S. and we will have plenty of game and fish for a long time to come. I believe the time is not far distant when all sportsmen will see where it is to their interest to join the L. A. S. and give us their support in this great cause.

I have the utmost faith in Mr. Shields's ability to protect himself and our interests regardless of the 2 little pamphlets that are being sent out from the Marlin gun shop. W. S. G. Todd., L. A. S., 3403.

NOT EVERY SHOT WILL KILL.

Any man who has killed much big game knows that at times he can kill anything with any kind of gun, while at other times he apparently needs a Gatling. There is no gun made which is equally good at all ranges and for all kinds of game. I have owned 8 different makes of rifles in the last 5 years. If I were hunting deer only I should want nothing better than a 30-30. For moose and caribou, in a heavily wooded country, I prefer a special, extra light 45-70, built for smokeless powder. In the West, where the country is open and game is generally seen at long range, I should use a 30-40 with smokeless powder. If I could afford to buy only one gun, and had to use that for everything, I should certainly want the 30-40, as it will use all kinds of loads and kill without much mutilation anything from a grouse to a moose.

All who have hunted much have seen many things that are hard to understand. At one time I used a 40-82, and killed a deer with it. However, it took 5 shots to do it; the first broke the hip and went through the body lengthwise, 2 went through just back of the shoulder, one through the neck, and the last through the head. With the 40-82 I killed a large moose, and found 2 30 caliber bullets sticking in its hide. On another occasion I shot a moose through the head with a 30-30, and although the bullet was a soft point it did not mushroom. I shot an elk with a 45-70 smokeless. One shot merely broke one of the forelegs, close to the shoulder, the metal jacketed bullet remaining in the leg. Another shot broke the shoulder, went through the body almost lengthwise, cutting 4 ribs, and lodged just in front of the hip on the other side.

When speaking to Mr. A. J. Stone,

some time ago, he said he had killed a good many sheep with the 45-90, but on one occasion it took 8 shots to bring one down, although almost any one of the 8 apparently should have been fatal. No man should blame his gun or himself if he does not kill everything he fires at.

C. H. Stonebridge,
New York City.

THINK THE 25-20 THE BEST.

In reply to H. F. L., Washington, D. C., will say that, in company with Gilman W. Brown, of West Newbury, Mass., the best authority on rifles whom I ever met, I have made careful experiments with all the cartridges H. F. L. named.

We found the 25-20 single shot cartridge superior to the 32-20 under all conditions.

The accuracy of the 22 long rifle for short distances, when not affected by the wind, is almost beyond belief. It is the most accurate cartridge made, although for hunting small animals the 25-20 is preferable, owing to its greater power.

Tests were made with the following rifles: 32-20 Winchester, single shot, 24 inch barrel, telescope sights; 22 long rifle, Winchester single shot, 26 inch barrel, peep and globe sights; 22 Stevens Pocket rifle, 15 inch barrel; 25-20 Stevens Ideal, No. 44, with Lyman sights, 26 inch barrel.

As between 25-20 single shot and repeater, buy the former for the sake of its superior cartridge. Both Winchester and Stevens single shot 25-20 rifles are splendid guns for ordinary shooting. I prefer a Winchester. I have owned 10 and never found the slightest fault with any of them.

D. P. Page,
Newburyport, Mass.

Answering H. F. L. about 25-20, 22 long rifle and 32 W. C. F., the 25-20 is the most accurate of the lot, and has good killing power on small game. I have a friend who owns a 25-20, and he says it is a good rifle for squirrels and rabbits. Du Pont's is the best black powder for reloading.

Charlie Linkhart,
Port William, Ohio.

ELBOW GREASE AS A GUN CLEANER.

In November RECREATION Harry Cranston says he can not keep rust out of his rifle. The trouble is due to the fact that he does not use enough elbow grease. It does no good to clean a gun until it is as bright as a dollar. Unless in absolutely perfect condition the bore will look brighter when half cleaned than when entirely free from powder, dirt and grease. You must keep at it with dry rags, wet rags, oiled rags, and again dry ones, until a rag can be run through without being discolored. Then oil the bore, and, if you've done the job well, no rust will be found when you pick the gun up to show your friend how you do it. I use a Tomlinson cleaner on my shot gun and it saves work; but there is no such thing made for rifles.

In every issue of RECREATION there are accounts of especially close-shooting guns and loads. I bought a standard Winchester take down gun a year ago. With it I killed a few ducks at extremely long range. With it, also, I missed or feathered many at 30 to 45 yards. Evidently I was one of the 9 out of every 10 men who use guns too good for their eyes, so I sold that gun, and have just received a new cylinder bore. I think I now have the best gun for game shooting. It will be just the thing for buck shot or ball cartridges if I ever want to use them. I put 5 No. 5 shot in the first duck I fired at, and killed the bird instantly. For an all-around gun, give me a cylinder bore Winchester. I use Laflin & Rand smokeless when I can get it. After that I'll take Dupont.

C. R. R., Marengo, Ill.

AN EXPLANATION.

I was pleased to see Dr. Keenan's criticism in July issue of my exploits with the 30 Winchester. My article was intended as a satire on some letters appearing in the gun and ammunition department of RECREATION; such, for instance, as deer running away with hearts shattered or falling dead at the mere report of the rifle, etc. Had RECREATION inserted it as written its object would have been apparent, but unfortunately the editor strove to vest it with an air of probability. It contained, however, a little truth. I have used, as I stated in my article, a .303 Winchester, not 30-30, model '95, not '98, for 2 or 3 years, and find it a weapon of perfect accuracy, and, with the metal jacket bullet, of terrible energy. The larger caliber rifles may be more deadly, but if so are certainly, for ordinary game, unnecessarily so. Dr. Keenan may deem me romancing, but it is true nevertheless, when I state that at 65 yards I put a bullet into the nostril of a deer without lacerating it in a perceptible degree; but it smashed the jaws and cheek to pieces and tore a great hole at point of egress behind the ear. Nor was my account of severing the buck's antler at Monroe lake a fable; but the rest was an effort of the imagination. I yield to none in admiration of RECREATION and its teachings, and should be ashamed to send a deliberate falsehood to its editor. Even Grizzly Pete was taken seriously by many, so I am not singular in being not understood.

N. O. L. I., Swansea, B. C.

PETERS CARTRIDGES FOR THE 22.

There are many good things in RECREATION, but of all departments that of Guns and Ammunition interests me most. Like Mr. Gambell, I am a champion of the 22, and so far as the relative merits of large and small calibers for ordinary hunting are concerned our ideas run parallel. When it comes to ammunition they disagree. Mr. G. has evidently never used Peters' semi-smokeless cartridges, or he would not think black powder cartridges better. During the last 2 years I have fired nearly 5,000 22 caliber cartridges, chiefly at targets. I have found the semi-smokeless so far ahead of the black that there is scarcely any comparison.

The dirt and grime of the cartridges mentioned by Mr. Gambell are horrible. After shooting a dozen shots with them a gun will become so fouled as to upset the bullets at 25 feet. With the Peters I have fired 100 shots without cleaning and have not been able to detect any difference in the shooting. Moreover, one rag drawn through the gun with a field cleaner would clean it thoroughly. I also find they will hold up 25 to 30 yards farther than the black powder.

One mistake Mr. Gambell made was taking his rifle indoors with cartridges in the magazine. That should never be done. I think the Winchester repeater the best, but deplore the fact that one gun will not handle both short and long shells.

W. C. Whittmore, Redlands, Cal.

A BUNCH OF QUESTIONS.

We are expected to believe that low pressure smokeless does not increase either the velocity or penetration of bullets more than black powder. If that is so, why do the manufacturers put a metal patch on bullets loaded with low pressure smokeless? Is the steel in the barrels of Stevens' Ideal rifles of a quality that would be safe in using 32-40 or 38-55 smokeless shells in them? Is the twist in the above mentioned rifles deep enough to shoot the lubricated grooved bullets? How long would a Stevens Ideal barrel last when shooting 20 32-40 or 38-55 cartridges every day? Does the Remington Arms Co. or the Ithaca Gun Co. make a double barrel hammerless with one barrel full choked and the other cylinder bored? How does the 25-35 compare with the 30-30 for hunting? Does the No. 3 Remington sporting rifle shoot farther point blank than the Winchester repeater of the same caliber? When will the Savage rifle be manufactured in another caliber. Amateur, Kelsey, Mich.

A 16 GAUGE ITHACA.

Having for some years wanted a 16 gauge gun, and getting a good second hand 12 gauge Ithaca hammerless, I wrote the Ithaca Co. asking if they would fit 16 bore barrels to the stock. They replied they would, and for a reasonable sum I received the gun with the new barrels last November. As a 12 it weighs 7½ pounds; as a 16 it weighs 8. The new barrels are 30 inch full choked. Both old and new barrels fit nicely and the gun balances well. The Ithaca Co. did good work for me and at a moderate charge. The gunners here laughed at the idea of using a 16 bore to shoot sea fowl. After seeing the gun used with killing effect none of them said anything against a 16 gauge. One morning I shot 2 loons at a distance said by a veteran gunner to be altogether farther than anything he ever saw killed with a shot gun. My gun shoots well with black or smokeless powder and any size of shot.

Eugene F. Midd,
Hampton Beach, N. H.

A HINT TO 'SCOPE MAKERS.

One drawback in the way of the fitting up of a rifle with telescope sights is the exorbitant prices asked for the hangers, which are equal to and in many cases exceed the prices of a first class telescope for same. For instance, the hangers adopted by the United States Government for sharpshooting cost $15 to $20 a set, while the glass only costs $18.

One telescope maker, on being spoken to about this, said he recognized this unreasonable condition of affairs and felt it an obstacle to the introduction of telescope sights, but manufacturers are positively unable to remedy matters. The hanger manufacturers are obdurate and will not make concessions. Fitting a first class rifle with these sights costs far more than the rifle itself. Will not some manufacturing reader come to our aid with a first class hanger at a reasonable cost?

E. E. Stokes, New York City.

SMALL SHOT.

I wish to warn your readers against the practice, recommended by some correspondents, of using kerosene in cleaning guns and rifles. Kerosene is excessively penetrating, and will enter the pores of gun barrels. No amount of wiping will ever entirely remove it when once used; and therein lies trouble, as it produces rust. To put this idea to the test, swab the inside of a gun barrel with kerosene, then wipe it out and set the gun away over night. Next morning you will find it difficult to force a tight-fitting dry swab through the barrel, and will, moreover, find the cloth red with rust. I advise the use of 95 per cent. alcohol in cases where nothing but kerosene would seem effective. Still, boiling water is preferable, if proper care is used

in wiping and thoroughly oiling with Winchester gun grease afterward.

L. A. S., 4753, Phila., Pa.

I have a .22 caliber Davenport R. F. rifle in which, owing to enlargement of the chamber, I can no longer use the 22 short. I have to use the 22 long. I can place 15 out of 20 shots in the bottom of a tomato can at 50 yards easily. I should like to know if the gun can be rechambered for the 22-13-45 W. C. F. It is take down and could be got at easily. The Davenport Arms Co. said it could not be done and the Winchester Co. said the twist of the rifling was not quick enough. I want a rifle to shoot well at 100 yards. Which has the longer range, the 22 extra long C. F. or the 22 Winchester single shot? Where can I get a reamer to rechamber the barrel for either the 22 extra long C. F. or 22-13-45 W. C. F.?

Chas. Vitous, Suterville, Pa.

Can high pressure smokeless powders be used in the Winchester 25-20 S. S. with good results? B. W. Weller,

Cincinnati, O.

ANSWER.

The 25-20 Winchester single shot rifle is in no way adapted to high pressure smokeless powder. To attempt to use such powder in that or any other black powder gun is to invite disaster. The Winchester people warn riflemen against using hand loaded high pressure cartridges in any rifle. They supply, however, a 25-20 smokeless cartridge, of the same strength as the regular black powder load, which is perfectly safe and satisfactory.—EDITOR.

I noticed in October RECREATION an interesting letter from P. H. Manley, Gilmer, Wash. He disdains the use of the shot gun, or "game exterminator," as he styles it, and says if he "can not cut a grouse's head off with a rifle ball he thinks he does not deserve it." If he were in the East, and relied on his rifle to give him enough birds for a meal, he would go hungry a while. However, it is evident there are extraordinary rifle shots in his part of the country. Eastern bred grouse and quails will make a man with a rifle exceedingly tired.

H. J. E. Thomas, Sharpsburg, Md.

G. A. Mers, of Becker, Minn., wants a good gun for ducks. There are a number of good guns, each having some desirable point in its favor, and all having admirers. My choice is the Winchester take down repeating shot gun. This gun is moderate in price, and its shooting qualities are unsurpassed. The 12 gauge is large enough, and with 32 inch full choke barrel it is as good a duck gun as anyone could wish. The Winchester, too, is advertised in RECREATION, and a stamp will bring their catalogue. W. M. Daniels,

Indianapolis, Ind.

I own a 30-40 Winchester. Have not yet tried it on game, but judging from the way it will smash a target I want no better gun. I have also a 30-30 Winchester. It has not the smashing power of the 30-40. I can not understand why anybody will endure the smoke, recoil and noise of a black powder rifle when the small bores are so much better and lighter.

Winchester, East Helena, Mont.

I have used U. M. C. cartridges and ammunition a long time and find them the best made goods on the market. They are as true to the mark as a cat to the hole in the wall unless it has its whiskers cut off. I shall use U. M. C. cartridges and no others. E. A. T., York, Pa.

I prefer the smokeless rifles if only because of their slight recoil. Those who have been hammered by the old 45 can appreciate that point. I should like to hear from RECREATION readers who have used the Mauser or the Borchardt carbine.

H. A. Baker, Dorchester, Mass.

Which calibre of rifle is best for bear, moose and deer? Roland Ramous,

Brooklyn, N. Y.

ANSWER.

I advise you to get a 30-40 Winchester or a .303 Savage.—EDITOR.

I should like to hear through RECREATION from someone using the Savage 30-30. I have one and like it.

W. B. Hescock, Waitsburg, Wash.

Should like to hear from some one who has used the Stevens Ideal No. 44, especially the 25-20. W. E. Congdon,

Salem, Conn.

Should like to have opinions on the Winchester rifle by those who have used it.

D. R. McLean, Elora, Ont., Can.

When you are through with your rifle or shot gun for the season where will you keep it? Would you not like a handsome gun rack to hold it? If so, send me 5 yearly subscriptions to RECREATION and I will send you such a rack, made of polished buffalo horns. It will not only afford a convenient resting place for your gun, out of harm's way, but is an attractive ornament to a wall.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

SUCCESSFUL PHEASANT BREEDERS.

London, Ont.

Editor RECREATION:

I have just seen the April number of your interesting magazine, and my notice has been drawn to an article by Mr. E. F. Titus, *in re* Mongolian or Chinese pheasants. For many years I have studied the characteristics of the 2 distinct species of ringneck pheasants; that is, the English and the Chinese. I think, with Mr. Titus, the name Mongolian is a mistake. These 2 varieties should be named after the countries from which they were obtained. No doubt the English pheasant was of the same stock, originally, as the present Bohemian, but was improved into its present form by the introduction of the Chinese ringneck, which supplied the want that was felt in regard to the old English pheasant as a bird suitable for the game preserves which were to be used for shooting purposes. The English bird had been so much domesticated that it was losing its power of flight, so in order to improve this the Chinese pheasant was introduced, and now, according to the Darwinian theory of the survival of the fittest, the English pheasant has merged itself into the Chinese; but, with the usual accompaniment of any cross, the English ringneck is a larger bird than either the old English pheasant or the Chinese pheasant. At the same time the English ringneck retains many of the characteristics of both. It is not so shy as the Chinese, and it is much stronger on the wing than the original English. It is more easily raised than the Chinese. On account of its greater wildness, or shyness, the young of the Chinese pheasant are much more apt to get into trouble than the young English ringnecks are; but if the instructions given by Mr. Foster are carried out there is no reason why the Chinese pheasant should not be raised in increasing numbers each year. His article in July RECREATION is well worth reading and following by any fancier of pheasants.

I have found an even better sitter than the Pekin bantam, which no doubt is a useful mother but is objectionable on account of its heavy leg feathers. The mother I refer to is a cross between the "Silken" and the game bantam. This is a fair sized bird, capable of covering 11 or 13 pheasant eggs, is quiet and a most notorious setter. You can be sure of them at any time, as they only lay about 6 or 8 eggs and then set. You can break them up in 4 days and they start laying again in about 10 days, so you can have them to order at any time from one year's end to the other.

Another point, which Mr. Foster says nothing about and which I think it worth noting, is the season when the young birds do best. In this climate, at least, the last week in May is almost too early. I have better and stronger birds if hatched out about the middle of June. This may be accounted for by the weather often being cold and damp in May. The same cause prevents the development of maggots. Sun and heat are needed to make flies produce the eggs from which maggots come; and maggots are necessary to the successful raising of pheasants.

Dr. J. S. Niven.

Judging from the failures described by those who have tried to raise pheasants, it must be a delicate undertaking, and doubtless many who are curious to try it do not make the attempt after reading such articles. They should not be so easily discouraged. Raising pheasants is not more difficult than raising common barnyard fowls, and failures only result from not having a knowledge of the right medicine.

First, do not hatch the eggs in an incubator. It may be hard work to get enough old hens, but this is the only means to be successful. Even if you have to pay $1 each for the old hens, it will, in the end, prove cheaper than to have the eggs hatched in an incubator, and, later, see the chicks die. Every spring, for a number of years, I have raised thousands of pheasants, the loss averaging, in the most disagreeable years, not more than 20 per cent., with the exception of 2 years when incubators were used, the loss then being about 65 per cent. Had I continued the use of the incubators, my employer would have been unable to invite his friends for pheasant shooting in the fall.

The cost of raising pheasants is about $1 each, including hunting the eggs, food and wages, with the exception of my salary, which was paid from another fund. Give to each hen but 12 eggs. The chicks need not be fed until the second day. For the first week, feed hard boiled eggs and about 1-3 lettuce, mixed and cut fine. Small grain, such as wheat, may be fed the first 3 weeks. Later, ground corn may be fed until the birds are large enough to eat the whole kernels without serious results, which should be in about 5 or 6 weeks after hatching. Two meals are sufficient each day, if the birds can go around free. Do not discontinue the use of lettuce,

though if used too freely it may cause diarrhœa and increase the per cent. of loss. Never feed milk or milk products if you would keep the loss down to the lowest percentage. Maggots and ant eggs make a good food, but should not be used until the birds are at least 6 days old.

Until the birds are 3 weeks old they should be kept under roof in dry quarters. Call them in before rain falls, if a storm is brewing, as loss will result if this is not done. Later, they will seek shelter of their own accord, in bad weather, if they have had plenty of food. In pleasant weather the birds may be allowed great freedom, but should always be protected against birds of prey. At night the birds must be kept in a stable. The young birds will stay around until large enough so that cocks and hens can be distinguished; then they stray from the stable.

These rules apply to the common pheasant. In raising the King pheasant, the loss is considerably greater, running up to 75 per cent.; but as these may not be much known in this country, I will not describe the special methods for raising them. If anyone wishes further information, he can have it by asking for it.

Joseph Brunner, Flat Willow, Mont.

BELIEVE GROUSE DRINK.

Last winter, while passing through a piece of wood, I came within sight of a grouse. As is my custom, I tried to get as near him as possible. When as near as propriety would allow I noticed he was standing at the edge of a tiny pool of water drinking, as I then thought and do now. That it was uncommon never occurred to me until reading the article of A. F. Rice. The bird was certainly dipping his bill in the water, but whether to get gravel, seeds or water I can not tell. After I had watched him some time, he looked at me as much as to say, "I am never afraid when that old hat is around." Soon he spread his wings and started for cover, but changed his course, coming within 15 or 20 feet of me. A short time previous he gave me an exhibition of his skill as a drummer. I do not hesitate to pronounce him an artist capable of a position in the Marine Band.

Last winter there were several gray and black squirrels and rabbits in the woods. I gave the rabbits apples and the squirrels corn. The grays were as fluffy as a snowflake, and the blacks shone like diamonds. They are all gone now. I suppose some vandal murdered them, and while such diabolical work is going on we are sending cheap whiskey and missionaries to foreign countries in order to convert the benighted heathen. May we hear more about grouse drinking.

A. D. Palmer, Montour Falls, N. Y.

Replying to A. F. Rice, I am positive that grouse do drink, as do the barnyard fowls; that plenty of water is highly necessary to them. In dry seasons they always congregate near streams and ponds, even though they have to leave better feeding grounds where there is no water. I have often seen them close to the water's edge and out on logs which ran into the water. Although I never actually saw a grouse dip his bill into the water, I attribute that to the fact that they had always seen me first and scented danger.

Last fall, in a dry time, it was only necessary to walk slowly along a road, which skirted the lake here, to get shots at grouse hurrying to the water from their feeding grounds above, and again returning, more slowly, to the feeding grounds.

Few people ever saw a grouse drum, but we all know it is a fact that they do.

W. L. Steward, Monson, Me.

I see in the November number of RECREATION that A. F. Rice asks for information on the manner in which grouse drink. My knowledge of the matter is that grouse drink the drops of water from the grasses and leaves of trees, this being particularly the case in wide stretches of country devoid of standing or running water. I remember distinctly a grouse that whirred over my head a few years ago in a deep ravine of the Blue Ridge mountains alighted within 30 feet of me on the edge of a dashing, sparkling, rapid stream. Only a thin screen of laurel leaves separated us from each other. I saw that grouse drink a number of swallows from the brook exactly as a barnyard fowl does. She waded in the water knee deep, and after drinking she took a bath. She ruffed up her feathers until she was as large as a peck measure, and the way she flopped and threw the water was a sight. Her bath lasted fully 3 minutes, and when she was not bathing she was drinking. From her appearance she was evidently hatching.

W. L. Michael, Calno, N. J.

WHY THE SKUNK FARM FAILED.

BY E. C. VICK.

Having just completed an article showing the money to be made in raising skunks, I was greatly interested in "The Monroe County Skunk Farm," which appeared in November RECREATION. I look to the skunk to turn to profitable use thousands of acres of waste land for which no other use can be found. The skunk is valuable on account of his skin and the oil, which is used for medicinal purposes. Over half a million skunk skins are shipped every year from this country to Europe, and the shipments are limited only by the supply of skins, which are dyed and then sold as Alaskan sable. Coats of this skin sell in

New York at the present time for $125 to $175 each. The skins as they are sold from the animal bring $1 to $2 each. The best skins are those taken in the coldest winter weather, and the oil is worth about 50 cents a fluid ounce. If desired, the scent sacs can be removed, and if properly done this does not injure the animal or the fur, doing away with all objectionable odor. This can only be done safely in young animals.

Skunks produce 6 to 9 young at a litter, breeding once a year. In farming, success will depend almost wholly on the care the animals receive. If you wish to fail read the article on the Monroe county skunk farm and follow their example. Begin on a large scale, without experience, and be in a hurry to get rich. If you wish to succeed secure a single skunk, care for it, watch it and learn its habits and requirements. If you can keep it alive and in good condition get a mate and try breeding. If you raise the young, get another pair, increasing gradually, and you will succeed.

It is possible in this industry, with work and experience, to make a clear profit of $10,000 a year on a farm of sufficient size, properly handled. If you are in a hurry to get rich and are not willing to work hard, do not try skunk farming, or, in fact, breeding of any kind; but with hard work there is no more generally successful, pleasant and interesting business.

Skunks must be supplied constantly with fresh water. Unless a pond or stream lies within the inclosure, a well must be drilled and an artificial pond kept filled with fresh water. Water in basins will not answer. This fresh water the Monroe county farm did not possess. Then, too, each individual skunk must have a separate hole, supplied by digging trenches and covering them with heavy boards, each hole supplied with a little straw with which to make a nest. The dens used on the Monroe county farm .not even rabbits would breed in, to say nothing of skunks.

About 50 skunks will thrive on an acre of land, though crowding must never be permitted. The food mentioned in the article in November RECREATION is all right, and the fence was constructed in the proper manner. With proper holes for each animal, males and females need never be separated, as the young will be raised to maturity by the mother. The fences must be examined daily to see that no animal has gnawed an opening from the outside from which the skunks may escape.

The failure of the Monroe county skunk farm by no means proves that skunk farming is unprofitable. Vast fortunes are lost every year in the publishing business, but that does not prove publishing unprofitable, as millions are made every year in that same business. Fortunes are lost every year in business of all kinds, but as a rule it is simply the individual or company that is proved a failure, not the business; and so it is with skunk farming.

A BIRD STORY.

Indianapolis, Ind.

Editor RECREATION:

Until recently I was a firm believer in the superior fighting powers of the English sparrow. Indeed, was not everybody saying that the English sparrow was driving away the robins and all our other native birds? About 2 years ago, however, I had an opportunity to do a little observing that has changed my mind in this matter.

As I sat by my window reading, at the time of which I speak, I became greatly interested in a woodpecker which was boring into a dead tree that stood near. What a gorgeous thing he was! And how he worked! The themometer had reached a most discouraging height; yet with his feet hooked over the edge of the hole and with his tail braced firmly against the tree, he threw out the white shavings at a rate that made me wonder whether birds ever get warm, as people do.

At last the hole was finished; at least it was large enough for him to get inside to work. One day he came; but instead of jumping in, he perched on the edge and turning his head sidewise in bird fashion, looked in. I wondered in an idle warm-weather way why he didn't go in. Just then he did. There was a moment of silence, and then a squawking as of a hen caught in a fence. Immediately my woodpecker appeared at the edge of the hole, holding in his beak, which to my somewhat excited eyes looked as large as a pair of scissors, an English sparrow. With a vicious fling, the woodpecker threw the squalling sparrow to the ground. Then, after waiting a moment as though to make sure the sorry-looking bunch of brown feathers was getting away as fast as it could, he flew off.

I was so amused by this woodpecker who was not building houses for English sparrows that I told a friend about him. This friend is a man who is so fond of birds that he keeps, during the summer, a great basin of water standing in the shade of a tree for their especial benefit. In return for my story he told me one that pointed to the same conclusion; namely, that English sparrows are not the only feathered fighters.

One day 10 or 12 robins were disporting themselves on the edge of the basin of water. Presently a blue jay jumped down softly from a higher place in the tree to a branch just over the basin. He was still a moment; then he hopped down to the edge of the water. The robins, surprised and frightened, flew away, leaving the saucy bluecoat in possession.

He looked at the water; then cautiously he let down one foot until it reached the cool surface. Then with a squawk that was like an Indian war whoop he jerked it up. He repeated the performance with the other foot. Then, with a final whoop, he jumped into the water. His noise attracted 3 or 4 other jays, and the basin was soon a mass of fluttering blue feathers. The robins by that time had got their breath and held a council of war. They came flying back; and the blue jays; whom I had always thought the personification of the pugilistic spirit, were put to flight. Yet we are told that robins can not fight for themselves. Evidently we should not believe all we hear about birds; but we should open our eyes and see.

Anna M. Locke.

DO DOES LEAD?

I noticed an inquiry in RECREATION as to whether does or bucks lead. I can not answer the question in regard to deer, as in all cases where I have come on them, there has been a general scramble to get out of sight as soon as possible.

In regard to elk and moose, however, I am satisfied that cows lead. Two years ago on Buffalo river, in Jackson Hole, I saw a bunch of 7 or 8 elk, all cows but one. When they saw me they ran down the mountain, the cows together and the bull 25 or 50 yards behind. A few days afterward I saw a bunch of about 30 cows and calves with one bull. The bull bugled, and the cows and calves immediately ran. The bull stood until the cows were out of sight; then he followed them. I think he wanted to draw me after him to give the cows a chance to escape.

Last year, while hunting on the North fork of the Shoshone river, I saw a bunch of 6 or 8 cows and one bull. The cows ran down the side of the muntain with the bull in the rear.

I spent August and September of 1901 in the mountains along the Shoshone and Yellowstone rivers, and saw 300 to 400 elk. In some cases there were so many it was impossible to tell which led, but in small bunches cows always led. While fishing in the head waters of the Yellowstone, 3 elk crossed the stream within 50 yards of me, a cow first, a calf next, and a bull last. They did not see me until they had crossed the river. A short time afterward I saw 2 elk apparently following a trail; the cow was 50 or 75 yards in advance of the bull. Then I saw a bunch of 4 cows and 2 bulls; they saw me at some distance. Although uneasy, they did not appear much frightened and trotted off, the cows first. A few days later, while riding along the Yellowstone, I came on a bull standing on the shore. After standing a while he plunged into the river and crossed. Looking across I saw 5 cows and calves that had crossed before I came in sight. I waited a few moments until they turned and trotted off. When they had gone 50 or 100 feet, the bull followed.

In regard to moose, I have noticed 2 or 3 times that where a bull and cow were together, the cow invariably led. While following the trail of moose or elk, I have always found when the tracks were mixed that the bull tracks were last. That could easily be seen, as the bull stepped into the tracks made by the others. Of course there is a possibility that the bull may not have been with the others at the time the tracks were made; however, I am satisfied that with moose and elk the cows lead, and it seems reasonable that this is also the case with deer.

C. H. Stonebridge, New York City.

NEW AMERICAN MAMMALS.

The past 2 years has brought to light an astonishing array of new mammals of large size inhabiting North America. The following species are well defined, and constitute important additions to our fauna:

Kennedy's Mountain Goat—*Oreamnus kennedyi.* Described in 1900 by D. G. Elliot. Horns long, slender, spreading widely, and deeply ringed. Locality, Copper River, Alaska.

Mountain Caribou—*Rangifer montanus.* Described in 1899 by Ernest Seton-Thompson. Size, larger than other species, dark-colored. Locality, Selkirk Mountains to Cassiar Mountains, British Columbia.

Alaskan Moose—*Alces gigas.* Described in 1899 by G. S. Miller, Jr. Antlers of enormous width. Locality, Kenai Peninsula, Alaska.

Fannin's Mountain Sheep—*Ovis fannini.* Described in 1901 by W. T. Hornaday. Has white head, neck, abdomen and rump patch, bluish-gray body and tail, and brown stripe down front of each leg. Locality, Klondike River, and Lake La Barge, Yukon Province, N. W. T.

White-fronted Musk Ox—*Obivus moschatus wardi.* Named in 1901 by R. Lydekker, described by J. A. Allen. Has a dirty white band across the top of the head. Locality, East coast of Greenland.

Mexican Mountain Sheep—*Ovis mexicanus.* Described in 1901 by C. Hart Merriam. Large ears, large molars, full forehead, pale salmon-gray color. Locality, Lake Santa Maria, Chihuahua, Northern Mexico.

Stone's Black-Faced Caribou—*Rangifer stonei.* Described in 1901 by J. A. Allen. Forehead black, cheeks dark brown, end of nose grayish white, antlers heavy and with many erect tines on the beam. Locality, Kenai Peninsula.

All of these species seem to be justified

by their differential character, although no one can say how many of them, 10 years hence, may find themselves branded "Synonym;" which, being freely translated, means "scientific error."

In the above memoranda, the English names of *Oreamnus kennedyi, Alces gigas,* and *Ovis mexicanus* have been kindly supplied by the editor of the Bulletin. Inasmuch as only 125,000,000 people speak the English language, and not more than 40,000,000 more are trying hard to learn it, the gentlemen who described and named those species did not think it worth while to bother with the bestowal of ordinary English names.—News Bulletin of the New York Zoological Society.

A FUR FARM.

Bangor, Me.

Editor RECREATION:

I fully appreciate the great courtesy you extend, in soliciting data in connection with my work, which may be interesting to your grand and growing army of readers, and in the course of time I hope to be able to send you some details. To me, the enterprise to which I am devoting myself more and more each season is not a novel one. The experimental side of it is the outgrowth of definite plans which were mentally laid down many years ago, long before fox farming in Alaska, or any other part of the country had been heard of. Trafton's island, in Narraguagus bay, which was acquired during the past season, is about ¾ of a mile in length, and varies from about ¼ to ½ a mile in width. It is being stocked with several varieties of fur-bearing animals, to some of which the freedom of the entire island is perpetually extended; while others will be kept within fixed limits by fences.

For some time to come experimental details will be conducted with closed doors, as far as the general public is concerned, but the latchstring is always out to Mr. Ernest T. Seton, who has ever evinced the most lively and kindly interest in my undertaking.

One thing I shall try to determine is, whether foxes can be bred to color. This and other unsolved problems will make the experimental part of the undertaking interesting, as well as expensive. I have lost many valuable silver foxes by confinement, but have some fine specimens now running out on an island in Narraguagus bay below the town of Millbridge, protected by keepers living on the island.

The animals being colonized embrace the following varieties: Black, or silver, fox; Pekan, or fisher; pine marten; beaver and otter; besides several varieties of less value. As early as practicable, experiments with Russian sable will be taken up. I feel reasonably confident that the food problem for the varieties enumerated has been solved.

Having derived much pleasure from time to time from your reading contributors to RECREATION, I shall be willing to reciprocate to the extent of my ability in due time. I wish you the full measure of your deserts, and what more could you desire?

N. E. Skinner.

HAVE HEARD COON CALLS.

I have read with interest the articles in RECREATION about noises made by coons. I have hunted coons in Florida for the past 15 years, and feel qualified to say that coons do bark and chatter a great deal. I have been in the woods at night and have heard what I supposed were coons fighting. When I took my dog there he never failed to strike a coon trail, and tree him, too. I have often shot coons and wounded them, in the presence of witnesses, and the coons would bark and chatter like a screech owl. If unbelievers will get them a tame coon apiece, they will soon change their minds about coons not making any noise. I have had several tame coons, and they all made the same noise, except that the females never bark. When coons are pleased they purr like a cat, and when they are angry they screech and chatter something like a fox squirrel. When coons are excited or frightened, they bark and chatter as a fox squirrel does when he is angry. If F. W. Allard would get a wild coon and try to tame him he would hear noises, from that particular coon, at least. Both tame and wild coons make noises. I could cite many cases of coons making lots of noise, but possibly Florida coons are different from all others.

W. S. Marriner, Gabriella, Fla.

I have 3 pet coons, which I have a good chance to study. They make a loud, purring noise in the breeding time. When they play at night they make a noise that is between a growl and a snarl. They also whine like a puppy when frightened.

Harry Clark, Maple Park, Ill.

THE SQUIRREL A MEAT EATER.

When a youth I trapped mink and muskrats on a small tributary of the Kennebec river. I used the old fashioned squat trap baited with fresh meat. One morning after a light snow I found a trap with the spindle swollen, preventing it from springing. The bait, however, was missing and numerous squirrel tracks in and about the trap told me where it had gone. The next morning I found in that trap a red squirrel, flat as a pancake.

I once saw a chipmunk sitting on a rock and eating a young field mouse. He would

clap it in his mouth, suck on it a while and then take it out, at the same time uttering a shrill note of defiance.

While I stood watching him, an old field mouse ran from under the sidewalk on which I was standing with one of her young in her mouth, carrying it much after the manner in which a cat carries her kittens. She entered a stone wall a few yards away, evidently seeking a place of safety for her remaining little one.

Horace W. Ward, Bath, Me.

NATURAL HISTORY NOTES.

Last Friday I saw a curious thing. A workman coming into the shop after his lunch, brought a large ruffed grouse which he claims fell almost into his hands on one of the principal business streets of this city. As far as I could find out, he was walking slowly when he happened to look up and saw the bird falling through the telegraph wires. The bird was warm when I first saw it, so I took this story to be true. Have you or any of your readers ever heard of a similar case?

W. C. Buell, Jr., Troy, N. Y.

Yes, I often hear reports of birds striking telegraph wires in flying, and killing themselves. I have found several birds myself that had met a similar fate.—EDITOR.

Does any reader of RECREATION know thoroughly the habits of crows? The reason I ask is that in this part of Minnesota we have always had an abundance of gray squirrels until this year. Those I now find are old ones, and the crows were never before so numerous. They nest in the same woods that the squirrels do. Does anyone know if crows kill or destroy young squirrels before they are old enough to care for themselves? I have watched closely and have come to the conclusion that they do. Should like to hear from other observers.

W. S. Jones, Albert Lea, Minn.

While going through a blackberry thicket I noticed the vacated nest of a yellow warbler. Struck by its appearance, I drew it from the bushes and found it was 2-storied, so to speak, one nest above another. Opening the lower one, I found the reason of its peculiar construction. It contained a cow bird's egg. Unable to cast it out, and unwilling to hatch it, the warbler had built a second nest on the first, in which she had reared her own brood.

R. Schieb, Akron, O.

I noticed a number of articles in RECREATION about the muskrat. I do not think anyone who has ever trapped them could have any doubt about their eating either fish or flesh. I have caught them in traps set for mink, baited with both, and have often seen them eating fresh water clams that they had brought up from the bottom of streams or ponds. I have shot them and found the partly eaten clams and fresh shells at the edge of the ice.

W. J. Cross, Becket, Mass.

Has any reader of RECREATION ever seen a gray flying squirrel flying upward from the trees or ground? I have on several occasions watched them and noticed that they always ran up a tree and swooped downward to another. I never saw them fly anywhere near a level, and they climbed a tree not less than 15 or 20 feet to fly to the next. Amateur, Kelsey, Mich.

September 18th a white deer was shot a few miles from here. It was the first albino deer seen here in many years.

C. F. Dalling, Woodstock, N. B.

It is not too early to begin planning your summer vacation. Where will you spend it? If you expect to camp out or to take a canoeing trip, a tent is the first necessity. I can send you, as premium, one of almost any size you may wish on the basis of one yearly subscription to RECREATION for every dollar of the price named in manufacturer's list. Write me for further particulars and begin taking subscriptions at once. The manufacturers have time now to fill orders. If you delay until their busy season opens, your entire vacation may be spoiled by an unavoidable delay in the shipment of your tent. By having everything ready for a prompt start you will enhance the pleasure of your trip tenfold. Send in your club at once and I will do the rest.

An old woman entered a savings bank the other day and walked up to the desk.

"Do you want to withdraw or deposit?" asked the clerk.

"Naw, Oi doant. Oi wants to put some in," was the reply.

The clerk pushed up the book for her signature and said:

"Sign on this line, please."

"Above it or below it?"

"Just above it."

"Me whole name?"

"Yes."

"Before Oi was married?"

"No, just as it is now."

"Oi can't wroite."—Cambridge *Tribune.*

Mother.—"Why, baby, what's the matter?"

Baby (who has been stung by a bumblebee)—"The automobile bug bit me."—Exchange.

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W. L. Underwood, 52 Fulton street, Boston, Mass.
C. E. Butler, Jerome, Ariz.
Mansfield Ferry, 183 Lincoln Park, Boulevard, Chicago, Ill.
Austin Corbin, 192 Broadway, New York City.
J. S. Brown, 241 South 5th street, Reading, Pa.

There are thousands of men in the United States who should be life members. Why don't they join? Will some one please take a club and wake them up?

WHAT THE LEAGUE HAS REALLY DONE.

It secured the passage of the Lacey Law, the most important measure ever adopted in this country for the protection of game, song and insectivorous birds.

It secured the repeal of Section 249 of the New York game laws, which permitted the sale of game in this State at all times, if killed in some other State.

It has detected 6 of the leading hotels and several game dealers of this city in the act of selling game in closed season, and secured from them written pledges to stop violating the game laws.

It has prosecuted and convicted the owners of 2 large restaurants in this city for selling game in close season, and has made them pay their fines.

It detected one large hotel in Syracuse and another in Buffalo in the act of serving game contrary to law, and has secured similar pledges from them.

It has sent 4 circular letters to all hotels, restaurants, game dealers and cold storage houses in the State, advising them as to close seasons on game, and warning them to observe same.

Its officers and detectives are constantly watching the hotels, restaurants, game dealers and cold storage houses in this city

and elsewhere, in search of illegal traffic in game.

It has absolutely stopped the sale of game in New York city at all times, except in the open season for killing same.

It has arrested, prosecuted and secured the conviction of 853 men for killing game or song birds illegally in various States of the Union.

It has secured many hundreds of written promises from others, accused of lawbreaking, to cease and to obey the laws in future.

It has built up a membership of over 8,000, distributed throughout all the States aand Territories of the Union, and all the provinces of Canada.

It has organized 42 State divisions, which are now in active operation.

It has appointed 52 local wardens in New York, and they have arrested, prosecuted and convicted 107 men for violating game or fish laws.

It has appointed 31 local wardens in Pennsylvania, 14 in New Jersey, 14 in Ohio, 7 in Connecticut, 7 in Virginia, 5 in Wyoming, 4 in Massachusetts, 4 in Michigan, 4 in Tennessee, 3 in New Hampshire, 2 in Iowa and one each in Nebraska, Vermont, Illinois, Oklahoma and Washington, and these wardens have arrested and convicted hundreds of men.

In June, 1899, the League induced the United States Government to issue an order which stopped the California Fish Commission from killing 40,000 to 60,000 seals on the California coast, which had been ordered destroyed.

In April, 1900, the Hon. W. M. Grant, chief warden of the Oklahoma division, seized 6,000 quails at Oklahoma City which had been consigned to Armour & Co., at Kansas City. The shippers were vigorously prosecuted and compelled to pay heavy fines.

In October, 1900, the President of the League brought an action against the American Line Steamship Company for having quails in possession in this city, and one against M. Robbins & Son for selling the birds to the steamship company. The cases were settled out of court, the steamship company paying a fine of $100 and M. Robbins & Son a fine of $1,000.

In April, 1901, Mr. F. E. Mockett, chief warden of the Nebraska division, seized 30 dozen quails which were being shipped illegally by the Armour Company. The case was settled by Armour paying a fine of $5 and signing an agreement not to handle any more game in Nebraska for 10 years.

The League has secured the passage of bills in 16 States to prohibit the sale of game at all times, and in 4 States to prohibit the wearing, having possession or selling of the plumage of song or insectivorous birds for decorative purposes.

It has among its members Hon. Theodore Roosevelt, Washington, D. C.; Hon. Boies Penrose, U. S. Senator, Philadelphia, Pa.; Hon. C. H. Dietrich, U. S. Senator, Lincoln, Neb.; Hon. Joseph F. Johnston, Governor of Alabama; Hon. Miguel A. Otero, Governor of New Mexico, Santa Fé; Hon. W. E. Stanley, Governor of Kansas, Topeka; Hon. DeForest Richards, Governor of Wyoming, Cheyenne; Hon. S. R. Van Sant, Governor of Minnesota, St. Paul; Hon. John G. Brady, Governor of Alaska, Sitka; Hon. W. D. Jenkins, Secretary of State, Olympia, Wash.; Hon. M. Patrie, Secretary of State, Boise, Idaho; Dr. D. C. Gilman, President Johns Hopkins University, Baltimore, Md.; Hon. John F. Lacey, M. C., Oskaloosa, Iowa; Hon. Ben. F. Caldwell, M. C., Chatham, Illinois; Hon. Joseph E. Thropp, M. C., Everett, Pa.; Hon. Jno. H. Small, M. C., Washington, N. C.; Hon. Geo. W Ray, M. C., Norwich, N. Y.; Hon. W. B. Shattuc, M. C., Cincinnati, Ohio; Hon. J. M. Robinson, M. C., Ft. Wayne, Ind.; Hon. Levi P. Morton, ex-Governor, Rhinebeck, N. Y.; Dr. C. H. Merriam, Agricultural Department, Washington, D. C.; Hon. T. L. Woodruff, Lieutenant-Governor, Albany, N. Y.; Hon. Willis Van Devanter, Assistant Attorney-General, Washington, D. C.; Hon. U. B. Hunt, Secretary of State, Indianapolis, Ind.; Capt. R. D. Evans, U. S. N., Washington, D. C.; Capt. Thomas Perry, U. S. N., Washington, D. C.; Hon. R. W. McBride, ex-Judge Indiana Supreme Court, Indianapolis, Ind.; Hon. C. B. Penrose, member Pennsylvania State Game Commission, Philadelphia, Pa., and many other men of national reputation.

Don't forget that the annual meeting of the League will be held in Indianapolis, Ind., February 12th, and that we want a large attendance. Only the officers and chairmen of committees are entitled to vote and act at the day session; but a banquet will be given at night to which all League members will be welcome, and I hope to see several hundred earnest men assembled round the festal board.

Reduced rates will be made by at least one good hotel in Indianapolis, and full information as to this can be had by addressing the Hon. F. L. Littleton, Chief Warden Indiana Division, Indianapolis, Ind.

If you wish to make several of your friends happy give each of them a year's subscription to RECREATION. At least once every month they will think kindly of you.

FORESTRY.

EDITED BY DR. B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes thirty years to grow a tree and thirty minutes to cut it down and destroy it.

TREES FOR THE PRAIRIES.

The following paragraphs, reprinted from *Harper's Weekly*, state correctly the need of forest-planting in the West as a matter of internal improvement and climatic amelioration, to which the States concerned should give their financial aid. It should not, however, be expected that this tree planting can in any way compensate for the decimation of forest resources and deficiency in lumber production of the forest regions. Under the climatic conditions of the plains and prairies, which are not of local but of cosmic origin, the constant winds sweeping over the country will always prevent the development to lumber size and lumber quality of even our best timber trees. Nor should it be expected that the climatic influence will be of a general character. It can necessarily be only of a local, limited character, felt within limited distances of the forest cover; for the mountain ranges, which largely determine the climate of the plains, will always exert a more powerful influence than small plantations.

Every time a severe drought threatens the corn or wheat crop in the West renewed attention seems to be called to the oft-considered and much-discussed question of providing the great central plains with trees to counteract in a measure the effects of the hot, dry winds. The small farmers of Kansas and Nebraska have to a certain extent redeemed their farms from scorching heat and drought by the construction of innumerable windmills to pump up water from the underground reservoirs for irrigation purposes. In wide sections of the West these home-made windmills dot the landscape so thickly that one unconsciously imagines he is in some Pennsylvania oil region, where the derricks and wells characteristically mark the whole country-side.

But excellent as these windmills may prove for irrigation purposes, they are more or less local in their effect, and they are of little general value in staying the disastrous effects of the prevailing hot winds when they blow in midsummer across the extensive acres of growing corn and wheat. Scientists decided years ago that the great hope of the farmers of that section was in clothing the prairies with trees. The United States Forestry Bureau has been making extensive studies and investigations in the matter for a decade past, and the State Agricultural Stations have made independent experiments with trees to obtain reliable data. In Nebraska and Kansas, in particular, the State Agricultural experts of forestry have planted trees in considerable numbers to ascertain the relative effect on agriculture and the species of trees which produce the best results.

It may be decades before the plains and prairies are properly clothed with trees in sufficient numbers to make any appreciable effect on the climate, but that this improvement will eventually be made is almost certain. Vast acreages of the West are unfit for farming, and if forests were planted on this land the climatic effect on the rest of the region would be of great benefit. In Nebraska alone there are nearly 10 million acres of government land that are totally unfit for good farming, and only indifferent for grazing; but most of it could be made to yield good timber trees, which would not only produce a fair profit in time to the planter, but would tend to reduce the disastrous effects of the hot, dry winds of summer.

The Forestry Division of the Department of Agriculture has planted at various times and places in the West a number of species of trees considered the most likely to thrive on the great plains. The soil, climate, and absence of moisture in the summer are effective weapons for destroying the young growths of ordinary trees; and so far the Scotch, Austrian, yellow, and banksian pines have proved the least susceptible to injury from the uncongenial surroundings. From the experiments so far made it is confidently believed that hundreds of thousands of acres of sand hills and prairie land can be successfully covered with these trees.

At the present writing the Forestry Division has a number of experts in the dry regions of the West making careful studies and observations of the question. Their attention will be directed particularly toward the reforesting of the government land in the great prairies and plains. If the millions of acres still owned by the national government could be reforested, the land thus held of little value to-day would in time prove of vast interest to one of the greatest agricultural districts of the world. It is not that this land is needed for farming so much as it is for growing timber. There is good farming land in the West sufficient for all needs of the country for the next 100 years, and its improvement and development by scientific methods of agriculture will be of more value to the owners and the country at large than opening up new tracts through artificial methods of irrigation; but our forests show no excess of production over demand, and their rate of increase is far smaller than the increase in the population and general demand. Here, then, is a profitable opening for State, national, and individual effort, and, with the reforesting, agriculture for the rest of the West will be made less risky and uncertain. The hot, dry winds will be tempered, the moisture of the soil conserved and held for the crops when most needed, and the rains themselves induced to fall more abundantly in summer.

The great treeless regions of the West must eventually yield to systematic planting of the right kind of trees, and then under a system of forest protection and cultivation millions of acres will be forever devoted to the profitable propagation of timber that will be so much needed in the future. The American forestry system is in the formative stage yet; but it is broad and comprehensive enough to include the question of reforesting the Western prairies, so the national calamity of crop destruction in the corn and wheat belt will be almost entirely eliminated. The most successful farming is that in which the uncertainty of production is reduced almost to the point of extinction, and this can be accomplished in the West only when the hot, dry winds have ceased to exercise their present baleful influence. Forestry for the prairies at present seems the most hopeful solution of the problem.

George E. Walsh.

ALASKAN FORESTS.

The first 2 of the volumes which are to record the results of the Harriman expedition to Alaska, undertaken in 1899, came from the press in October, one of the most sumptuously illustrated publications of its kind. Besides the narrative of the journey it contains chapters on the climate, geography, and resources of the country, and among these a chapter on the forests by Dr. B. E. Fernow, who was of the party. Dr. Fernow remarks on the interesting distribution of the different species of forest trees, showing that along the coast, as is to be expected, the flora of the West coast of Oregon and Washington is continued, with one species after another dropping out until only the tideland spruce and the 2 hemlocks remain; and finally at the Western limit on Kadiak island the spruce alone forms the open, park-like forest.

In the interior, on the other hand, the species are those of our Eastern flora, the Adirondack spruce, aspen and birch. Of the commercial value of the Alaskan forest Dr. Fernow does not give glowing accounts. The coast forest, about 20,000 square miles in extent, mostly found on the islands of the Alexander archipelago, contains only a small quantity of the valuable Alaska cedar, while the largest proportion is hemlock, with the spruce a close second. These 2 species are not very valuable, even where best developed in the more Southern coast region, and here they are poorly developed, knotty and branchy, besides difficult of access; so that it pays better, even now, to import lumber from the Puget sound country, notwithstanding the efforts of local sawmills.

The interior is described as an arid region, with temperature extremes from 60 degrees below zero to 112 degrees above, the forest growth mostly stunted and open, occurring in patches or islands and along river courses, as we are accustomed to see it in the arid and semi-arid regions of the Rocky mountains. The economic value of these scanty resources can only be local, but they are of highest importance to the development of the mining industry.

Curiously enough, in the same volume, only a few pages removed, Mr. Henry Gannett, the geographer of the U. S. Geological Survey, uses the following language with regard to these same forest resources: "The interior of the territory is forested, mainly with spruce, as far North as the valley of the Koyukuk and as far Westward as the delta of the Yukon. In this enormous region there must be a great quantity of coniferous timber, sufficient to supply our country for half a generation in case our other supplies become exhausted."

Neither of the 2 writers saw that part of the country, but report second-hand information. Did the geographer or the forester interpret conditions and statements of explorers correctly? Dr. Fernow at least states his sources of information. Regarding the coast forest, the 2 authorities also differ. Dr. Fernow considers hemlock the main timber and does not think either spruce or hemlock of good quality. Mr. Gannett says:

"The timber is mainly, indeed almost entirely, Sitka spruce. There is some hemlock at higher levels. . . . The spruce is large, fine, judged by Eastern standards."

Who is likely to have seen more accurately and to have a judgment on the market value of a forest?

SUCCESSFUL FOREST PROTECTION.

Pasadena, Cal.—Forest Supervisor E. B. Thomas says that about 25 fires were started in the San Gabriel forest reserve last season, but in almost every case they were checked in their incipiency, and little damage resulted to the covering of the mountains. Twenty-five rangers are employed in the reserve, an increase of 10 over last year, and they are maintaining a strict patrol of their territory, one of their duties being to keep a record of every person who passes through or to the interior of the reserve. These persons are cautioned by the rangers to be careful in the building of camp fires, and in no case to leave such fires burning after abandoning a camp. Flagrant disregard of this admonition has involved a party of 3 men in a serious difficulty. They were cautioned by the rangers in the customary way, but on leaving camp neglected to quench their fire. As the names of the men were known, warrants were issued against them and are now in the hands of the United States Marshall for service, and the men will soon be taken into the Federal court for trial. The extreme penalty for the offense charged is one year's imprisonment or a fine of $1,000, placing the offenders in a serious dilemma.

Another order recently issued forbids the carrying of shot guns int othe government forest reserve. The enforcement of that order is a source of much discomfiture to hunters, but it is considered necessary for the protection of the forests. The reason for the order is the danger from ignited gun wads, which fall into the brush and smoulder sometimes for hours before breaking into flames. A fire was started in this manner but a few days ago near Monrovia, and only the prompt action of the rangers prevented a destructive conflagration. Persons carrying shot guns are informed by the rangers that such firearms must be relinquished to the government agents; failure so to turn them over barring the hunter from the reserve.

Little trouble is found by the rangers in enforcing these regulations. Intelligent persons recognize their justice, but an obstreperous individual is encountered occasionally, and harsh treatment becomes necessary. All rangers wear government badges, making their identification positive, and their word is law in the reserve.—California Exchange.

REDWOOD CUTTING SHOULD BE CONTROLLED.

According to a report received from California, a company has been formed on the Pacific Coast, with a capital of $15,000,000, for the purpose of controlling the redwood market. There are not many lumber merchants in the East who handle

this product of the Western forests extensively. It is shipped from California to Japan, China, Hawaii and England. In those countries it is used for building purposes. Great quantities of shingles are made from the wood, and it is used for coffins, door jambs, rails, wainscotting, window sashes and similar house fittings.

"The wood should be more popular than it is," said a dealer, "because the best quality is cheaper than the best pine. It would be more in demand if the dealers in the Far West paid more attention to the Eastern market, but they prefer to sell to China and Japan."—*Exchange.*

If the trust is formed for the purpose of managing the remnant of the limited supply of redwood conservatively, we welcome it. Even if it means raising prices it would be a proper movement because such rise of price is necessary to make conservative lumbering possible. The present wasteful methods by which hardly 30 per cent. of the wood in the forest reaches the market are at least in part chargeable to the low price for the material, which does not permit a closer utilization.

PROFESSIONAL FORESTERS INCREASING.

The Philippine Forestry Bureau has made a raid on the professionally educated foresters in this country. The New York State College of Forestry has lost 2 of its senior students, Messrs. Clark and Klemme, who were sufficiently advanced in their studies to pass the Civil Service examination, and Mr. Hagger, its forest manager from the College Forest, and its first graduate, who leaves a position with the New York State Forest, Fish and Game Commission. Captain Geo. P. Ahern, the chief of the Forestry Bureau, also secured the services of 2 other foresters, Messrs. Griffith and Hareford, and of Mr. S. N. Neely, a civil engineer, formerly employed by the United States Forestry Division in timber and physics work, to conduct a wood-testing laboratory. The crop of foresters promises to grow more rapidly in the future, the New York State College of Forestry having this year, inscribed 38 students, and the students in the Yale Forest School, showing an increase of 22.—*Exchange.*

FOREST SUPPLIES.

It is estimated by the superintendent of forest rangers of the Province of Quebec that the spruce forests of the Province aggregate 144,363,000 acres and that the consumption denudes 830,750 acres annually, so that if no increase in the consumption took place it would take 173 years to exhaust the supply. Inasmuch, however, as the spruce forest renews itself in 15 to 25 years there would seem to be enough timber in Quebec to supply any probable demand practically forever.—Canadian paper.

Such false statements as the above, which go the round of the papers, retard the application of forestry principles in the use of our remaining forest resources. The statement that a spruce forest renews itself in 15 to 25 years is incorrect. The trees that the lumberman is satisfied to cut are mostly over 150 years old. What is meant is that after 15 or 25 years some of the trees that the lumberman had left because they were too small have increased their diameters sufficiently to satisfy him; but there is no renewal or reproduction to make good the removal.

MORE FOREST RESERVATIONS.

The forest reservation policy has found entrance into the State of Michigan, in spite of the defeat of the legislation which attempted to introduce it last winter. Mr. D. A. Blodgett, of Grand Rapids, has given to the State Forest Commission 35,000 acres of timber land in Crawford and Roscommon counties, which the Commission has accepted and expects to handle as a forestry reserve. This tract adjoins other land which has come into possession of the State for non-payment of taxes, and if the lobby against the State devoting this land to forest purposes can be defeated a State forest reservation of 1,000,000 acres solid can be established in the central part of the peninsula.

BALLADE OF LITERARY LETTERS.

Of old it was an easy thing
  To write a letter to one's dear,
To line the words we felt, and cling
  To simple sentiments and clear;
  But times are sadly changed, we hear—
Love grows enamored of the mint;
  We pen our lines with care and fear—
Our letters must be fit to print.

No more in our accustomed way
  We say the tender things we mean;
Our letters may be made to play
  A part in book or magazine.
  Ah, me! They once by one were seen—
We did not have to hedge or hint;
  But now the public comes between—
Our letters must be fit to print.

Whene'er the lean wolf snarled of old,
  A man sought friends without demur,
Or left his watch in Shylock's hold,
  Or starved or stole, as he'd prefer;
  But now he takes the notes of Her,
The honeyed lines she did not stint,
  And hies him to a publisher—
Our letters must be fit to print.

L'ENVOI.

Sweetheart, henceforth with words alone
  Shall Love his fond expressions tint.
It grieves me sore, yet must I own
  My letters are not fit to print.

—Theodosia Garrison,
in October Century.

PURE AND IMPURE FOOD.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH. D.
Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

COOKING IN WESTERN COWBOY CAMPS.

Discussing the camp cookery of the Western plains, H. A. Crafts in a recent magazine says: "A Mexican, with a grimy sack of flour, a little water, a little baking powder and a fire of sage brush, can in a few minutes prepare most excellent biscuits. The Mexican makes his biscuits with the simplest kind of a cooking outfit.

"Did he have a bread pan? Not at all. Such a thing would be a mere superfluity. No! He simply unfastened that dingy sack of flour from his saddle, placed it squarely upright on the sod, and rolled the top of the sack nicely down until it made a rim around the edge of the flour. Then he scooped out a hollow in the flour and poured in some water. The quantity of water determined the number of biscuits he proposed to bake, and no more water was added in the process of mixing, because that would probably spoil the whole mess. Adding the remaining ingredients, he began to stir the mixture with a spoon, gradually working in the flour from the edges. When of the desired consistency, he took the mass between his hands and molded it. Then, replacing it in the sack, he proceeded to cut from it sufficient dough to make a biscuit. That he deftly molded in turn, and placed in his frying pan, already hot and greased with bacon fat. When the pan was full he tilted it in front of his fire, and soon had a panful of beautiful biscuits. white within and browned to a turn on top.

"I am told by persons of experience that the novice at open-air cooking nearly always commits the error of using too much fuel. In consequence, there is an excess of heat both in the cooking and the cook. It is surprising how little fuel the experienced person needs to cook a fair meal. A few buffalo chips, a handful of sage brush or pine fagots will suffice. One secret of this person's success is the cool and deliberate manner in which he works. The amateur is usually in a great hurry, and thinks he can best accomplish his task by putting on steam. Disaster follows in his wake, and even the tough stomach of the plains rises against his abortive attempts at cookery; whereas the man who knows his business uses no haste, little fuel and does not place his viands to cook until his fire has burned nearly down to coals.

"The cooking outfit of the round-up is usually a well equipped affair, especially as regards provisions, for the Western cattleman is a generous feeder. The life of a cowboy is exacting, so he is given all the good, wholesome food he cares to eat. The food must be well cooked, too, so the cook on the round-up must be a competent person. He is well paid, getting $40 to $50 a month as wages. The camp larder is well supplied with canned vegetables and dried fruits. Canned fruits are too bulky to carry on the round-up. The best of fresh beef is at all times at hand. Beef is cooked largely into soups and stews. Beef and tomato soup is a favorite dish with the cowboy. Stewed fruit is used in large quantities. It is also cooked into pies, puddings and dumplings; but it is greatly relished in its simple form, and it is no uncommon thing to see a cowboy eat a quart bowlful at one sitting. It is especially esteemed for its dietetic qualities.

"The camp changes location daily, as the round-up moves across the country. If possible, it is located near timber. To begin with, the cook secures 2 logs of green timber, according to the size of the outfit. These logs he places on the ground side by side and about 8 inches apart. Then he builds his fire of dry stove wood between the logs. If the outfit is destined to traverse a treeless country, a supply of stove wood is taken along in the camp wagon, and instead of cooking over a pair of logs a narrow trench is dug in the ground and the fire built in that. The cooking is done in large pots, pans and kettles, with a Dutch oven added.

The cook turns out about 3 o'clock in the morning. No matter what the weather may be, it must be done. In wind storm or rain storm breakfast must be served. About 4 o'clock he wakes the remainder of the crew. The sleepy cowboys turn out reluctantly, because their sleep was sweet and their bodies tired from much hard riding. They souse their faces in buckets of cold water. If there is a spring or creek near, they prefer to perform their ablutions there. Then they saddle their broncos; after which there is a call to breakfast. Each cowboy is supplied with a knife, fork, spoon and a large tin plate. Of course, there is a good sized cup of coffee, for that grateful beverage is drunk in unlimited quantities in the cow camp. He has a plate or 2 for side dishes. Then each cowboy marches up to the campfire, where there is a smoking row of pots and

kettles, and helps himself to what he wants. He retires and allows another to take his turn. After supplying themselves they all sit a short distance from the fire in a picturesque group on the ground and partake of their morning meal. That is the only regular meal of the day, as they come in from the range at all hours until sometimes late in the evening. The cook replenishes his pots and kettles and, as the cheap restaurant man says, gives 'meals at all hours.'

"Fresh, hot coffee is kept constantly on tap, and is largely indulged in by the tired cowboys as they come in from a long, hard gallop. No cheap grade of coffee is furnished, either, but the best the market will afford. This is the only stimulant permitted on the round-up, save in case of sickness.

"Occasionally the bill of fare is varied by the addition of some kind of wild fowl or by jack rabbits which the cowboys shoot while out on the range. The mining prospector in the mountains has a much better opportunity to indulge in the luxury of wild game and fish. He may shoot deer, elk, bear, mountain sheep, rabbits, grouse, sage hens, etc. The streams are also filled with trout, so that the mountain bill of fare may be made superior to that of the plains."

FOOD SUPPLIED DURING THE SIEGE OF MAFEKING.

The following statements regarding the food supplied during the siege of Mafeking are included in a report by General R. S. S. Baden-Powell:

"Early in the siege I took over all merchant stocks and put everybody on rations. Beginning on the usual scale, I gradually reduced it to the lowest that would allow of the men being fit for duty. During the latter part of the siege, no extras of any kind were obtainable. All lived strictly on the following scale:

	At first.	Latterly.
Meat	1 pound	¾ to 1 pound
Bread	1 "	5 ounces
Vegetables	1 "	6 "
Coffee	1-3 ounce	1-3 "
Salt	½ "	½ "
Sugar	2 "	...
Tea	½ "	...
Sowens	...	1 quart

The first ration was calculated to furnish 142 grams protein, with a fuel value of 2,517 calories; the latter, 149 grams protein and 2,722 calories.

"We had a large stock of meat, both live and tinned. For livestock, we had to open up a wide extent of grazing ground. We ate the fresh meat first in order to avoid loss from enemy's fire, failure of grass and water, lung sickness, etc. The tinned meat we stored in bomb-proof chambers, and kept as reserve. During the last 2 months, we were on horseflesh 3 days a week. Our stocks of meal were comparatively small, but we had a large supply of forage oats. Those we ground into flour, and fermented the residue into sowens, a form of porridge. The remaining husks went as forage to the horses. Fresh vegetables were largely grown within the defences, and for a greater part of the siege formed a regular portion of the ration.

"The cost of feeding the troops was 1s. 3d. per ration, or, with fresh vegetables, 1s. 6d.; about 3d. below the contract price in peace. Civilians paid 2s., and women in the laager 1s. 2d. All liquor was taken over and issued in 'tots' to the troops on wet nights. This, I think, saved much sickness.

"For the natives, we established 4 soup kitchens, at which horse stew was sold daily, and 5 sowen kitchens. Natives were all registered, to prevent fraud, and bought rations at 1 quart per adult, and 1 pint per child, at 3d. a pint. Defence watchmen, workmen, police, etc., and certified destitute persons were given free rations. The kitchens so managed paid their own expenses.

"Our master baker made up our forage oats into a good form of bread. The oats were winnowed, cleaned, kiln dried, steam sieved twice, and made into bread in the usual way, with a small admixture of Boer meal."

Regarding sowens, General Baden-Powell says: "This is a form of porridge, made from the fermented bran of oats after the flour has been extracted for making bread. One hundred pounds of bran in 37 gallons of water give 33 gallons of sowens. On this we fed both natives and whites. We had 5 sowen kitchens, each capable of producing 800 gallons daily. It was sold at 6d. a quart to those not entitled to it as a ration.

"The horses which we used for meat were, as a rule, so poor in condition that we found it best to cut off the flesh from the bones and mince it for issue as a ration. The remainder of the carcass then went to the soup kitchen. The mince was mixed with spice and saltpetre, and made up into sausages, the intestines of the same animals being used for sausage skins. The meat thus treated lasted longer, and was more palatable."

BLANCHING CELERY.

Celery is blanched to deprive it of its natural green color and of certain bitter properties, thus rendering it more palatable. The desired end is attained by the exclusion of light from the stalks. All are

familiar with the fact that plants which grow in the dark are white or nearly so. If grass is accidentally covered with a board or stone a few days it turns yellow, that is, it blanches. Celery bleaching is usually accomplished by heaping earth against the plants, nearly to the tops of the stalks in the trenches or beds where they are grown. This keeps the light from the plants, but does not stop their growth. Boards about a foot wide are also used for excluding the light. They are leaned against the plant on either side of the row and held in position by wire hooks, cleats or other means. Drain tiles and stiff wrapping paper, are sometimes used for covering the celery in such a way as to secure bleaching, as is also moss, especially in Florida. Sometimes the plants are set so closely together that they shade and bleach themselves. This is the method employed in the so-called "new celery culture," which is simply the growing of varieties with self-blanching tendencies in rows 8 to 12 inches distant either way and banking or boarding up the outside rows only.

At the Pennsylvania Agricultural Experiment Station a test was made of the relative merits of blanching with earth and with boards. In some cases celery blanched with boards was ready for market earlier than that blanched with soil; but the celery so blanched was decidedly inferior, and, as a rule, was long, slender, pithy and bitter, while that blanched with soil was exceedingly large, crisp and tender.

In experiments at the New York Cornell Agricultural Experiment Station, on forcing celery in the greenhouse for the early market, all the usual methods of bleaching were tried, but without success. When, however, the plants were wrapped with a thick, hard wrapping paper with an almost "sized" surface, the bleaching was successful. By this method "the stalks were brought together and tied and a width of paper reaching to within 2 or 3 inches of the tops of the leaves was rolled tightly about the plants. As the plants grew, another width of paper was rolled about the first, and again, reaching nearly the top of the plant." Two applications of the paper were found to be sufficient. From a month to 6 weeks were required to bleach the celery by this process in a cool house in April and May.

SOME EUROPEAN FOOD CUSTOMS.

Discussing the foods of foreign lands, a writer in a recent magazine states that in Europe many families at Easter partake of lambs roasted whole and stuffed with truffles and pistachio nuts. This dish is universal in Turkey, and is seen in the street booths, ready to carve into portions.

In France and Germany all vegetables are well cooked, including carrots, cauliflower, celeriac, cardoons, artichokes, morels and cepes (varieties of mushrooms), and string beans.

The chicken stew with cream and paprika is peculiar to Hungary.

In Norway will be found anchovies and caviare, salmon and game, including reindeer. Norwegian caviare has cloves in it and is not quite so fine as a brand of black caviare which is made in Hamburg. Ptarmigan, or white grouse, is baked in earthenware, with wine and spices to extract its rich flavor. Reindeer will be found equal to venison. Rod grode, a jelly of currants and sago, is the most popular Norse dessert. Salads of red herrings, anchovies and potatoes are indigenous to Norway and Sweden.

In Russia the sterlet and sturgeon are found, the finest fishes that swim. The latter is caught in the Volga and in the Caspian sea, and its roes are made into caviare. Sturgeon is braised in champagne and offered to royalty. The capercailzie, also found in Scotland, flies over the estates of princes and, when brought low, is a delectable substitute for turkey. Russia is the country of zadzouska, or cold appetizers; a table covered with salads, sandwiches and pickles is spread at the doorway of every dining-room of pretension. The greatest variety and ingenuity prevail. Bears' paws, stewed with wine and bacon and vegetables, is a dish popular with sportsmen. Borscha, a soup of beets, is dear to all classes.

A yearly subscription to RECREATION furnishes one of the most delightful, instructive and entertaining presents you can possibly give a man or boy who is interested in nature, in fishing, shooting, amateur photography; or, who is fond of the woods, the fields, the mountains, the lakes or the rivers.

Many of the presents which people give their friends afford pleasure only for a few days, or weeks. A subscription to RECREATION means solid comfort a whole year. It reminds your friend 12 times during the year of your kindness and generosity. There are many men and women who for 5 years past have annually sent in long lists of names of friends, accompanied with a check, in order that these friends might be made happy a whole year. Would it not be well for you to adopt this plan?

Try it and see how grateful the recipient will be.

"Is your husband going West on the advice of his physician?"

"No; on the advice of his lawyer!"—Exchange.

EDITOR'S CORNER.

SUBSCRIPTION RECEIPTS FOR 4 YEARS

Read the deadly parallel columns:

	1895.	1896.	1900.	1901.
January ...	$379	$723	$3,205	$3,903
February ..	256	693	2,151	3,267
March	300	1,049	1,919	3,710
April	342	645	1,570	2,760
May	292	902	1,377	2,303
June	307	770	971	2,016
July	345	563	854	2,000
August	306	601	1,262	2,245
September .	498	951	1,464	1,940
October ...	438	969	1,842	2,227
November .	556	1,054	2,060	2,570
December .	652	1,853	4,742	4,981
	$4,671	10,773	23,741	33,922

A gain of $10,181 over 1901. Not so bad, when you recall that Paddy Marlin has spent at least $100,000 trying to kill RECREATION.

If you doubt the accuracy of these figures remember you can see the letters that brought all this money any day, if you will call here.

Office hours: 4 a. m. to 10 p. m.

PRESIDENT ROOSEVELT FAVORS GAME PRESERVES.

The following letter is self-explanatory:

THE LEAGUE OF AMERICAN SPORTSMEN,
OFFICE 23 W. 24TH ST.,
NEW YORK, Oct. 29, 1901.

To His Excellency, Theodore Roosevelt,
President of the United States,
Washington, D. C.

Dear Sir: I beg to suggest that in your annual message to Congress you advise and urge the enactment of certain laws of which we are in urgent need for protection of American wild animals, birds and forests.

Among these measures I respectfully call your attention to the need of a law making all the Western forest reservations game preserves, in the same sense and under regulations similar to those in force in the Yellowstone National Park.

We have several regiments of cavalry that must be maintained somewhere. One company of each regiment could be stationed on each of these reservations to do scout and police duty. This would keep men and horses in splendid condition at all times. In addition to these, 10 or 12 citizen scouts should be employed for each preserve; and this would be practically the only expense the Government would have to incur in maintaining these forests as game preserves.

Another thing the Government should certainly do is to purchase the Allard herd of buffalo, and maintain it for at least a long term of years, on the range it now occupies. The animals could be bought at a reasonable price and the grazing privilege could be leased from the Flathead Indians at a nominal sum per year. The increase of the herd could be distributed among city parks, zoological societies and private owners. Thus the species could be perpetuated in this country for all time to come.

A liberal appropriation should be made to carry out that provision of the Lacey law which authorizes the Secretary of Agriculture to engage in the propagation and distribution of game birds.

I need not take up your time with arguments as to the urgent need of these measures. No man is more thoroughly familiar with the situation than you are, and anything you might say to Congress on the subject would have greater weight than the same words would have had if uttered by any one of your predecessors, because every public man knows your interest in the cause of game protection.

Hoping you may see fit to adopt these suggestions, I am

Yours respectfully,
G. O. Shields, Pres.

Here is what the President said about it in his annual message:

Certain of the forest reserves should also be made preserves for the wild forest creatures. All of the reserves should be better protected from fires. Many of them need special protection because of the great injury done by live stock, above all by sheep. The increase in deer, elk, and other animals in the Yellowstone park, shows what may be expected when other mountain forests are properly guarded. Some of these areas have been so denuded of surface vegetation by overgrazing that the ground-breeding birds, including grouse and quails, and many mammals, including deer, have been exterminated or driven away. At the same time the water-storing capacity of the surface has been decreased or destroyed, thus promoting floods in times of rain and diminishing the flow of streams between rains.

In cases where natural conditions have been restored for a few years, vegetation has again carpeted the ground, birds and deer are coming back, and hundreds of persons, especially from the immediate neighborhood, go each summer to enjoy the privilege of camping. Some, at least, of the forest reserves should afford perpetual protection to the native fauna and flora, safe havens of refuge to our rapidly diminishing wild animals of the larger kinds, and free camping grounds for the ever-increasing numbers of men and women who have learned to find rest, health and recreation in the splendid forests and flower-clad meadows of our mountains. The forest reserves should be set apart forever for the use and benefit of our people as a whole, and not sacrificed to the shortsighted greed of a few.

Some important measures, looking to these ends, will be introduced in Congress at an early date, and all League members will be asked to aid in securing their passage.

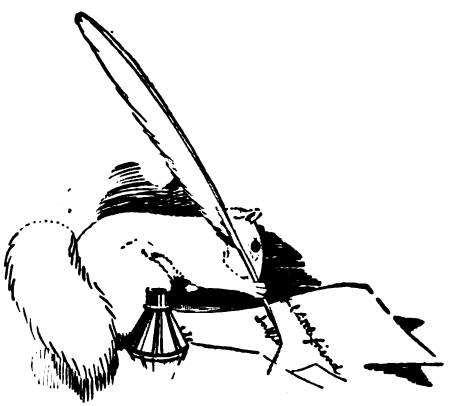
WHAT INKIE THINKS.

My dear Boss:
I haven't learned to write pretty good yet, but I hope you can read this.

I was looking over your desk while you were out, and found your article about squirrels, and I tell you Boss it made me like you better than ever. You speak my sentiments exactly. Ever since I have lived with you I have felt sad when your friends have come in or written to you and told how many squirrels they had killed and how much fun they had in doing it. I have often wondered if any of those men or boys had killed my mother, or my father or my brothers or sisters. It makes the tears come in my eyes every time I think of it.

I am so glad you have asked the fellows to quit killing squirrels, and I hope every hunter will heed your earnest appeal. We are harmless little people and do not deserve to be killed.

Your grateful little friend
Inkie



Last fall 2 contemptible game butchers were arrested by Nelson Yarnall, his brother Silas Yarnall, and Jack McCabe in the Wind River country, charged with killing elk for the teeth. The teeth hunters were taken before Richard Green, Justice of the Peace at Dubois, Wyo., where one of the men, Rudolph Rosencrans, pleaded guilty to the killing of 26 elk, and was fined $25 and costs, the total amount being $38.80. The other butcher was allowed to go free. The Wyoming law provides a minimum fine of $25, and a maximum fine of $100 and imprisonment for 6 months for the crime with which these men were charged, and it is a shame and disgrace to the State of Wyoming that a man who would release a confessed culprit such as Rosencrans on so light a punishment, should be allowed to occupy the position of a magistrate. At this rate Justice Green seems to figure the value of a bull elk at about $1.49! I trust Justice Green's neighbors will see to it that when his term of office expires he shall be allowed to retire to private life.

The Betz herd of bristle backs made their usual cruise to Carolina last fall, returning to Philadelphia in December, with 840 ducks and geese hanging about the rigging of their yacht. As usual these men had themselves and their yacht photographed, and certain of the Philadelphia papers published the pictures, with the ancient Philadelphia style of laudation.

The sportsmen of this country could do the cause of game protection an immense service by invariably writing the editors of papers that eulogize game hogs and condemning the aforesaid editors in vigorous and emphatic English. The daily papers print such articles and pictures for revenue only, and if they could be made to understand that they displease more people than they please by displaying such disgusting pictures and comments, they would quit it. Gentlemen, it is up to you to stop this custom of patting game hogs on the back.

It is estimated that 5,000 deer were killed in the Adirondacks last fall, and that 23 of the men who were hunting them were either killed or wounded. This record should prove a decided advantage to the deer in that country. It would seem that sensible men would not care to go in there to hunt next year. Any man of courage is willing to go into battle and take all kinds of chances of being shot when there is an enemy in front of him; but I can not understand how any man would be willing to be shot full of holes for the mere sake of killing a timid, inoffensive deer. One thing is certain; some one must devise a bullet-proof armor for hunters, or else men must quit hunting in the Adirondacks and in Maine.

The 2 beautiful snow pictures published on page 8, of January RECREATION, were made by Mr. A. D. Richmond, Grand Rapids, Mich., and should have been credited to him instead of to Mr. D. H. Darling. The prints were sent in by Mr. Richmond some 2 years ago but unfortunately his name and address were not written on them. At a subsequent date Dr. Darling sent me a series of similar pictures, and a letter with them, which was printed on page 32, of January RECREATION, and I supposed when I sent Mr. Richmond's pictures to the engraver, that I was sending those made by Mr. Darling. Both series of views were equally good, and I deeply regret that the lines should have become snarled in this way.

The following additions have been made to the RECREATION group in the New York Zoological park since last report:

C. D. Brown, Rutherford, N. J.,
1 Mink.
4 Black-crowned night herons.
4 Yellow-crowned night herons.
Melville Chapman, Rutherford, N. J.,
1 Screech owl.
Miss Doane, Waterlily. North Carolina,
1 Black duck.
Roy A. Latham, Orient Point, L. I., N. Y.,
1 Loon.
1 Pied-billed grebe.
Francis J. Rauh, No. 522 E. 141st St., N. Y. C.,
1 Opossum.

HOW IT AFFECTS US.

The editor's raving and tearing his hair,
The business manager's sunk in despair,
The poet is crazy, the artist has struck,
The boss of the press-room is running amuck,
The bookkeeper's sick, the stenographer's sad,
The office boy's blue and the porter is mad;
His reckless profanity isn't reproved
For we feel the same way now the office is moved.

The unanswered letters securely repose
In some hidden place that the Lord only knows;
We write with a pencil, for no one can think
What has become of the bottles of ink.
The ads for the paper have all disappeared
And if we can't find 'em the issue is queered.
The types and the cuts are all battered and grooved,
They're not fit to print, now the office has moved.

The painters are working right over our heads,
Our desks are bespattered with purples and reds;
The chink of the gas-fitter's hammer we hear,
The carpenter hammers away by our ear.
It will be very nice by and by, we'll allow,
But what worries us is the here and the now.
We know when it's settled 'twill be much improved,
But Lord! what a mess now the office is moved.

—Exchange.

Printer: How many copies of that book do you want me to print?

Publisher: We are advertising advance orders for 100,000, aren't we?

"Yes."

"Well, print 600. Let's see how it goes."
—Exchange.

A fond mother, hearing that an earthquake was coming, sent her boys to the house of a friend in the country. She immediately received the following telegram: "Take your boys away, and send along the earthquake."

PUBLISHER'S NOTES.

DEER HUNTING IN ONTARIO.

The Grand Trunk Railway System announces that the deer hunting season in Ontario resulted most satisfactorily to the hunters who went into that district during the open season of 1901. Though complete information with regard to the number of licenses issued this year has not yet come to hand, it is estimated that over 5,000 licenses were issued; and hunting parties and others estimate the deer killed to be about one and a half deer to each hunter. This would make a total of 7,500 deer killed. It is somewhat marvelous how the stock of deer keeps pace with the number killed, but it seems that each year they are becoming more numerous, and there is an increase instead of a diminution. This is accounted for by the shortness of the open season, which runs from November 1st to 15th, and by the strict prosecution by the Ontario Government of anyone transgressing the laws. The wanton slaughter which, no doubt, would have prevailed had hunters been allowed to kill at their pleasure has thus been prevented to a great extent, and one of the best heritages of the public has been saved. This year the Canadian Express Company alone carried 2,372 deer, which is an increase over the season of 1900 of 878 deer, the total weight of these shipments amounting to 236,637 pounds. All these shipments were made from points located on the Grand Trunk Railway, the largest number of carcases being taken out of the Magnetawan river region, the Muskoka lakes district and points on their Northern Division North of Huntsville. Of course, this is not a criterion of the number that are killed, as this does not include those killed by settlers, Indians and half breeds and by those hunters who do not have to express their deer to their homes; nor the wounded deer which get away and die; nor those killed and eaten by the 5,000 hunters and their dogs during the 2 weeks they are in the woods. Taking all these into consideration, there could not have been less than 8,000 or 9,000 deer killed during the season of 1901.

SUCCESSFUL SHIPMENT OF LIVE DEER.

Nelson, New Zealand,

Mr. Charles Payne, Wichita, Kan.

Dear Sir—I owe you an account of the journeyings and unqualified success attending the importation of the 5 Virginia deer purchased from you. First of all, I presume you railed them from Kansas to 'Frisco. Thence they had a 3 weeks' boat journey to Auckland, when they were transshipped to the Quarantine, where they remained exactly 2 months, and I believe in a none too large enclosure. From Quarantine they were shipped for a 4 days' journey to Nelson. On account of the extreme roughness of the weather we detained them here a week and then shipped them in a small boat to Collingwood, the most isolated part of this Province, where they are doing well. The necessary period of quarantine is 60 days, but on account of our deer shooting season being open at the time we thought it best to keep them out of harm until the season was over. Their appearance on arrival here was more than excellent. Sleek, and with magnificent coats, they were the admiration of all. Such a success, after all the knocking about they have had, would lead me to believe that you could send animals successfully to the uttermost ends of the earth.

Thanking you for what you have done for us, I am, Yours faithfully,

J. R. Macdonald, Secy.

A NEW FOLDING STEREO.

The Blair Camera Company, Rochester, N. Y., has issued a new catalogue of the Hawk-Eye camera, which should be in the hands of every amateur photographer. A new field of work for amateurs is suggested in this little book. On page 8 are a cut and a description of a Stereo camera which makes pictures of the usual and popular size for use in the stereoscope, and which sells for $25. This camera is provided with an excellent double lens and double bellows, and yet folds up into so small a space it can be carried in an overcoat pocket, or in a small valise. A good stereoscope can be bought at a surprisingly low price nowadays, and anyone familiar with the power of these instruments knows how greatly a picture may be improved by making it double, and then looking at it through stereo lenses.

Send for a copy of this new catalogue, and when you get it, study this stereo Hawk-Eye carefully. The company will send you some sample views made with this instrument, and they will certainly prove of great interest to you. When you write, please mention RECREATION.

THE OLD STILL NEW.

The calendar season has returned, and among the most notable samples of that class of work that have yet come to hand is the one from E. I. DuPont de Nemours & Co., Wilmington, Del. This company

was established a little over 100 years ago, and the present calendar is issued as a centennial souvenir. An historical insert goes with this calendar, giving a brief history of the building up of this great industry and some interesting pictures of events in which DuPont powder has figured. These are Perry's victory on Lake Erie; a picture of a typical Indian warrior; a primitive coal mine and a modern battleship.

I am authorized to say that only a limited edition of this calendar has been issued, and that it will be sent free, together with a copy of the historical chart, to persons mentioning RECREATION, as long as the edition lasts, but that preference will be given to those who enclose 3 cents for postage.

A cut of this calendar is shown on another page of this issue.

ONE IN A HUNDRED.

Messrs. N. W. Ayer & Son, the Philadelphia promoters of advertising, have issued their 1902 calendar. As usual, the background, and main sheet, of this calendar is an art work, enhanced in beauty by the tasteful colors of the printer. The 12 sheets containing the dates of the months have a restful, dark, green background, the large figures in white catching the eye at a great distance. In each sheet are epigrammatic sentences bearing on the possibilities of business during the year. This calendar is one in a hundred for artistic beauty and real usefulness. The demand is always great, and whoever would have a copy should sent 25 cents before the edition runs low. This is a merely nominal price to cover the cost of printing, handling and postage. Address N. W. Ayer & Son, Chestnut and Eighth streets, Philadelphia.

TAKE CARE OF YOUR DOG.

Don't fail to read the advertisement of the Polk Miller Drug Co., appearing in another portion of this issue. For 3 cents in stamps they will send you a revised edition of Polk Miller's book on "Dogs—Their Ailments—How to Treat Them," including a pedigree blank for which they make no charge. This book is invaluable to every dog owner, inasmuch as it describes accurately the various symptoms accompanying the more frequent ailments with which dogs are afflicted. More sick dogs have been made well by the timely use of "Sergeant's Dog Remedies," the leading line of prescriptions manufactured by this firm, than possibly any other medium in existence. Polk Miller will cheerfully answer any inquiry in regard to his preparations, or as to the ailment with which your dog may be afflicted.

In a recent article on the growth of traffic on the New York Central Railway, the Rochester Herald says, "The New York Central may well be called the thoroughfare of the nation."

This statement was brought out by the last census, which shows that of the people living in cities of 8,000 or more inhabitants, more than one-half live along the New York Central lines; and of the people living in cities of 100,000 or more inhabitants, two-thirds live along the New York Central lines.

These and other startling figures are given in No. 13 of the "Four Track Series," of which a copy can be obtained by writing to Mr. George H. Daniels, G. P. A., New York.

Mr. R. H. Pooler, Serena, Ill., makes a cartridge belt that is exactly what every shot gun shooter would want if he knew about it. The belt is made of a web, and has a suspender to pass over the shoulders. The cartridge holders are all the new model patented by Mr. Pooler. The belt is fastened in front by a new style of clasp, which is easy and rapid to manipulate, and which when hooked will stay until unhooked by hand. Stringers for carrying game can be attached to the belt at will. Write Mr. Pooler for his illustrated circular and for a sample cartridge holder, which will be sent free to anyone mentioning RECREATION.

Leeds & Lippincott, of Haddon Hall, one of the big hotels at Atlantic City, N. J., have issued a book that is an exquisite work of art. It contains 6 full page pictures printed in color, illustrating the hotel inside and out, the beach, the famous board walk, the golf grounds, etc., in such a way as to make anyone who examines the book long for an opportunity to see this famous resort for himself.

These people have also issued a calendar, which is one of the neatest and most beautiful of the season. Both of these will be sent free to anyone asking for them and mentioning RECREATION.

The Hazard cup, emblematic of the world's wing shot championship, was won at Kansas City December 21st, by C. W. Budd, by the score of 30 straight. F. S. Parmlee was second with 34 in a field of 32 representative expert shooters. Both gentlemen use U. M. C. factory loaded shot shells. This contest was followed by a team shoot between Omaha and Kansas City, 10 men on a side, shooting at 25 birds each. Every member of the victorious Omaha team shot U. M. C. factory loaded ammunition, as did 6 of the Kansas City shooters.

The Harrington & Richardson Arms Co. have issued a calendar for 1902, which is sure to be popular. The picture represents a hunting girl armed with a Harrington & Richardson gun, and the result shows that these people knew where to go for an artist that could do this kind of work. He should have signed the picture, but unfortunately he has not done so.

This calendar will make an attractive hanger for any office or den, and will be sent free to persons asking for it and mentioning RECREATION.

Sportsmen who visit New York during the winter should all go to Wallack's theatre. Col. R. E. Moss, the manager of that house, is a thorough sportsman, a big game hunter, a member of the L. A. S., and vice-warden of the New York Division. Sportsmen may therefore rest assured they will always find at this house high class entertainment, and that they will be courteously and properly taken care of.

The Franklin Institute, of Philadelphia, on behalf of the National Export Exposition, awarded to the International Correspondence Schools the highest award, a diploma and a silver medal. The specific reason for the award, as stated in the diploma, is a unique, thorough and comprehensive system of technical education by correspondence.

Editor: Who sent in this item about that last hailstorm?

Sub-Editor: Young Jenkins, of Podunk. Why?

Editor: Why, he says some of the hail stones were as large as canary birds' eggs; that chap is too honest to be a reporter; just drop him a line and offer him the position of cashier in this establishment.—Puck.

I received the canoe you sent me as a premium for 12 subscriptions. It is the third canoe I have had recently. The other 2 were canvas and far inferior to my new one in every respect. The ease with which I secured the premium makes it the cheapest canoe I have ever received or ever expect to receive. I thank you sincerely for it. Lin Smith, Indianapolis, Ind.

Anxious Father (from top of stairs)—Say, Mary Jane!

Mary Jane—Yes, papa.

"Is it eleven o'clock yet?"

"Yes, papa."

"Well, give the young man my compliments, and ask him to kindly close the front door from the outside."—Chicago Daily News.

"Hello! What's your hurry?"

"I'm going out to Subbubhurst to look at a piece of property a real estate man wants to sell me."

"Ah! Want to see how the land lies, eh?"

"Yes. Also how the land agent lies."—Exchange.

The Syracuse gun you gave me as a premium for 30 subscriptions came promptly. It is a good hard shooter, and I would not take $40 for it to-day. It took me one day to get my 30 subscribers.

E. L. Benson, Omaha, Neb.

I received the Harrington & Richardson automatic hammerless revolver and am much pleased with its shooting. It is a handsome weapon, too.

W. G. Wright,
Hawkesbury, Ont., Can.

The Thompson hunting boots arrived today. They are a perfect fit and are just what I wanted. Allow me to thank you for your kindness and promptness in sending them. E. S. Mack, Beaver Falls, Pa.

The Marble pocket axe which you sent me for 3 subscriptions came to hand. It is perfection.

I. J. Engelson, Watson, Minn.

Mrs. Myles—"That hat makes your face look short."

Mrs. Styles—"That's funny. It made my husband's face look long."

Received the Shattuck gun as a premium. It surpasses my expectations.

W. T. Adderley,
Spokane, Wash.

RECREATION is the best book for amateur photography and outdoor sport that I have ever read. It is everything the name implies. S. L. Hunt, Stamford, Conn.

The Indian Paddler canoe arrived in good order. It is a beauty and finely finished. Please accept my sincere thanks.

Robert Shirley, Waterloo, N. Y.

RECREATION brings me more enjoyment than any other periodical I read. May the good work go on.

B. Frayer, Cleveland, Ohio.

Judge—"You say the defendant turned and whistled to the dog. What followed?"

Intelligent Witness—"The dog."—Exchange.

I received the Shakespeare reel all right, and am well pleased with it.

A. F. Flick, Cleveland, O.

PURE WHISKEY

Direct from **Distiller To - - - Consumer**

FOUR FULL QUARTS *for* $3.20

EXPRESS PREPAID By US

SAVES MIDDLEMENS PROFITS
PREVENTS ADULTERATION

Since *1866*

Hayner's pure double copper distilled Rye Whiskey has been sold to Consumers direct from our own Distillery, known as "Hayner's Registered Distillery No. 2, Tenth District, Ohio." No other Distillers sell to consumers direct. Those who offer to sell you whiskey in this way are speculators who buy to sell again, on which plan they are compelled to add a profit, which you can save by buying from us direct.

We will send four full quarts of Hayner's Seven-Year-Old Double Copper Distilled Rye Whiskey for $3.20, express prepaid. We ship on approval in plain, sealed boxes, with no marks to indicate contents. When you receive and test it, if not satisfactory return it at our expense and we will return your $3.20.

Such whiskey as we offer you for $3.20 cannot be purchased elsewhere for less than $5.00, and the low price at which we offer it saves you the addition of middlemen's profits, besides you are guaranteed the certainty of **pure** whiskey, absolutely free from adulteration.

REFERENCES.—Third National Bank, Dayton; State National Bank, St. Louis, or any of the Express Companies.

WRITE NEAREST ADDRESS

THE HAYNER DISTILLING CO.,

226-232 West Fifth Street, DAYTON, O. 305-307 S. Seventh St., ST. LOUIS, MO.

N.B.—Orders from Ariz., Col., Cal., Idaho, Mont., Nev., N.Mex., Ore., Utah, Wash., Wyo., must call for 20 qts. by freight, prepaid.

I guarantee the above firm to do as it agrees.—EDITOR.

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This is the kind of photograph made with

The AL-VISTA Camera

GETS EVERY THING IN SIGHT

TO THOSE WHO HAVE NOT SEEN THE work produced by these remarkable Panoramic Cameras it is a revelation. The Revolving Lens takes everything in sight, working on the principle of a focal plane shutter.

Our Co-operative Plan

We are selling directly to the consumer from the factory. We have adopted the plan of selling these cameras on monthly payments. You have the camera while you are paying for it. This certainly shows our confidence both in our cameras and in human nature. Write us for full particulars.

Multiscope & Film Co., No. 136 JEFFERSON STREET BURLINGTON, WIS.

AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

PRIZE WINNERS IN THE ANNUAL CONTEST.

RECREATION'S 6th annual photo competition closed November 20, 1901. Mr. H. M. Shrady, the sculptor, Mr. Louis Akin, one of RECREATION'S staff artists, and Mr. James Cruikshank, a well known mechanical engineer and inventor, were chosen as judges. They devoted several hours to a careful and conscientious examination of the pictures, and awarded prizes as follows:

1st—Upper Sacramento River, W. H. Bartlett.
2nd—In Full Sail, D. W. Flint.
3rd—Fly Fishing, H. G. Higbee.
4th—A Howling Coyote, E. N. Good.
5th—Besieged, J. E. Tyler.
6th—All in a Row, R. H. Beebe.
7th—Willow Ptarmigan on Nest, Evan Lewis.
8th—Resting, Mrs. P. B. Kirschner.
9th—Homers, H. H. Hess.
10th—A Hunter's Solace, C. W. Long.
11th—Wild Goose on Nest, Mrs. E. E. Lawrence.
12th—Bird and Eggs, H. P. Gosney.
13th—In the Rush of Waters, D. G. Tolles.
14th—A Natural Pose, W. H. Fisher.
15th—His Best Day, W. L. Wilcox.
16th—Meddling with Danger, H. G. Higbee.
17th—Nest of Ruffed Grouse, W. H. Fisher.
18th—A Good One, E. D. Hess.
19th—Muskrat, W. Stark.
20th—A Prairie Gopher, Clinton A. Smith.
21st—Hen Hawk, J. Bauer.
22nd—Bugling, O. H. Hill.
23rd—Wild Geese, Mrs. E. E. Lawrence.
24th—Live Wild Rabbit, Dr. J. B. Pardoe.
25th—Up a Tree, J. H. Miller.
26th—Taking a Sun Bath, F. N. Wood.
27th—Six O'clock P. M., H. E. Loftie.
28th—A Morning Nip, R. C. W. Lett.
29th—I'm Busy, J. R. Peterson.
30th—A Good Retriever, J. E. Stanley.
31st—Rosy Gulls, H. K. Job.
32nd—Dash at Close Quarters, B. L. Nichols.
33rd—A Lodge in the Wilderness, Mrs. P. B. Kirschner.
34th—Thank You, C. M. Hay.
35th—Hairy Woodpecker, C. C. Speight.
36th—Owlets, Clinton A. Smith.
37th—Thinking It Over, Dr. J. B. Pardoe.
38th—Quails in the Stubble, E. C. Thatcher.

The Special Prize offered for the best photograph of a live wild animal was awarded to Mr. H. S. Walker, Jr., for his picture of Virginia Deer.

The following were highly commended:

Moonlight on Lake Erie, E. S. Wilson.
A Resort of the Rainbow, F. M. Hodges.
Jip, J. E. Stanley.
An Unfair Deal, J. E. Tyler.
Old Diamond, a Grouse Dog, H. M. Beck.
Fishing, Dr. H. Gibbes.
Jammed Again! Chas. Drechsel.
Lone Fisherman, H. M. Beck.
Old Woodsman, H. C. Robinson.
Woodsman, H. C. Robinson.
Fox Squirrel Panel, Andrew Emerine.
In the Long Grass, E. C. Congdon.
Logging, D. G. Tolles.
The Swan, T. H. Wade.
We Shall Have Fish for Dinner, A. Emerine.
Curiosity, E. E. C. Gibbs.
Live Rabbit, W. R. Smith.
Pigeons, H. H. Hess.
'Possum, W. R. Smith.
Pole Cat, L. D. Lindsley.
Mending the Nets, E. S. Wilson.
A Real Fish Story, A. Emerine.
Willie Bodkin's Trout, A. Emerine.
They Wouldn't Bag Alive, J. E. Tyler.
Farewell to Summer, H. P. Morton.
A Bunch of Cottontails, G. W. Batten.
An Intruder Discovered, J. E. Tyler.
An Irish Stew, A. Emerine.
Called, T. L. Edden.
Young Golden-winged Woodpeckers, J. H. Miller.
Sand Swallows, C. C. Speight.
Chipmunk To-morrow, H. G. Higbee.
The Real Thing, E. L. Cobb.
Sailing Home, T. J. Curren.
Sailing, L. F. Newcomb.
A Favorite Resting Spot, Donn Day.
Hard Work, A. B. Richmond.
Chicken Thief, H. C. Robinson.
A Bad Point of View, Dr. J. B. Pardoe.
Nesting, C. C. Speight.
Snake, J. H. Miller.
I'll Throw That One Back, Dr. J. B. Pardoe.
A Feathered Pair, I. N. Cross.
Bird's Nest, Evan Lewis.
A Frog He Would a Wooing Go. C. L. Garrett.
Live Frog, C. E. Clark.
Bluebird at Nest Hole, C. A. Reed.
Well, Well, I Like This! L. D. Lindsley.
Lizard, J. W. Jones, Jr.
Bob Cat, W. M. Horsley.
Green Heron, H. K. Job.
The Champion, Miss Ollie Wallace.
Out from the House, L. D. Lindsley.
Rabbit, W. R. Smith.
Three of a Kind, H. T. Whitmore.
A Full House, H. T. Whitmore.
Listening, Homer Smith.
Young Kingbirds, G. E. Embody.
Muskrat, W. Stark.
Wild Duck, C. A. Smith.
Homeward, E. A. Reed.
Young Owl, H. K. Job.
In Full Sail, L. F. Newcomb.
Buzzards, F. C. Steele.
Cedar Birds, E. T. Wood.
Ring-billed Gulls, H. K. Job.
Waiting for a Bite, H. B. Wentworth.
Nest Under the Apple Leaves, Homer Smith.
Cedar Bird, Dr. J. B. Pardoe.
Trout Fishing, H. Marsch.
Nest, Evan Lewis.
Jaws of the Spider, W. Stark.
Feeding, Mrs. B. H. Morgan.
Baby Owl, Clinton A. Smith.
Owlets, Clinton A. Smith.
After the Hunt, M. Maurin.
Nest, G. E. Embody.
Magpie, T. H. Wade.
Deer Mouse, C. C. Speight.
Thrush, C. C. Speight.
Mink, W. Stark.
Gopher, H. K. Job.
His Black Majesty, W. H. Fisher.
Two of a Kind, C. C. Speight.
Spider Web, Mrs. F. W. Tilden.
Garter Snake, W. Stark.
Chipping Sparrow Feeding Young, Dr. J. B. Pardoe.
Bluebird, R. H. Beebe.
Plenty for One, Mrs. W. Dunlap.
Over the Fence, G. E. Embody.
An Earnest Point, W. H. Gorham.
Jack and Bill, Dr. J. B. Pardoe.
Wild Geese and Young, Mrs. E. E. Lawrence.
Feeding Wild Geese, Mrs. E. E. Lawrence.
Standing a Bevy, F. A. Bovee.
Setter, H. C. Tobey.

Deer Park, E. J. Stow.
A Disputed Point, H. D. Schermerhorn.
The Start, G. H. Meek.
Wonderland, an Appreciation, F. Bryne Ivy.
Tillie, with a Gun, Dr. J. B. Pardoe.
Tillie Catching Minnows, Dr. J. B. Pardoe.
Sea Girt, N. J., F. L. Wilcox.

I have decided to give each person whose work was commended a year's subscription to RECREATION. I trust this may prove satisfactory to many who would otherwise have felt disappointed at not winning a prize and that all who competed in this contest may try again next year.

ENLARGING BY DAYLIGHT.

Notwithstanding the variability in the intensity of daylight, it has one great advantage over all artificial lighting; at any rate during the summer months, when the intensity is fairly constant a few hours in the middle of the day. With artificial illumination, one must always employ either condensors or elaborate methods of equalizing the light over the negatives from which the enlargement is to be made, by means of diffusers or translucent screens, which cut down the power of the illuminant to an enormous extent. As against these, daylight means speedy and inexpensive work, as well as a quality of enlargement such as no form of artificial light can yield unless it be the arc light and diffusers, says Photography, of London.

Focusing, when working with daylight, has, of course, to be done with as much care as when using artificial light.

With lenses of the most modern types, it will be found in many cases that the focus alters appreciably with an alteration in the stop. Focusing then becomes a more difficult operation than it otherwise would be, and must invariably be carried out with the stop which it is proposed to employ.

The most convenient arrangement for daylight work when the enlargements are not to be of excessive size will be found that which takes the form of a long box, having the lens fitted in the center of a septum capable of being slid toward either end of the box. The negative holder may be permanently fixed, the lens and the other end of the apparatus being adjustable, but to work under the most convenient conditions it will be found better to make the negative holder capable of adjustment also. In fact, focusing can be more easily done from that end than from the other. If it is proposed to make the apparatus virtually a fixed focus camera for enlarging, a convenient type for the amateur, then the respective distances of the 2 ends from the lenses should first be found by calculation. When once the negative holder and the screen are placed therein, fine focusing may be effected by means of a magnifier until the greatest degree of definition is attained.

To do this final focusing once for all and with the greatest accuracy, a piece of plain glass may be substituted for the negative, and in place of the sensitive paper a sheet of printed matter. By focusing this printed matter on the glass and using an eyepiece, extremely sharp definition may be obtained. It is more difficult to focus an enlarged image of the negative sharply on the screen than it is to focus a reduced image on a piece of plain glass placed where the negative is to be.

If the focusing is to be done on the enlarging board on a sheet of white paper or card, an eyepiece is not required, and, indeed, can not be used. I watched a photographer focusing a negative for enlarging a few weeks ago, and noted an elementary point which he overlooked at a cost of some 10 minutes of his time. Do what he could, the enlargement would not come sharp. An examination of the negative showed it was itself slightly blurred; not noticeably so in the ordinary way, but plainly enough when magnified on the screen.

One other point is often disregarded. When enlarging straight into a darkened room by daylight, there should be nothing of a light color near the sensitive paper or between it and the lens. If there is, the light reflected from the surface of the bromide paper will be reflected back on to it, and the whites are sure to be to some extent degraded.—Camera and Dark Room.

HOW SOME PRIZE WINNERS ARE MADE.

Malden, Mass.

Editor RECREATION:

I send you 2 prints of a photograph entitled "Three Virginia Deer." It was taken with an Eastman Kodak on a New York plate. The lens was one that was furnished by the Eastman Company. The photo was a snap shot; but I do not remember the length of the exposure. These prints are made on platinum paper.

This photograph was taken on Ellis pond, Somerset county, Maine, in September, 1899. My brother and I, with a guide, stayed there 3 months during the summer. Deer and moose were numerous and we tried many times during our stay to get some pictures of them, but this one is the only satisfactory plate we secured, on account of poor light or because the deer were frightened before we could get near enough to take a photograph.

The morning we took this photograph we had an early breakfast, as our guide was obliged to go to the settlement, 11 miles away. After he had started we were sitting on the piazza of our camp, when I thought I saw something across the lake, about a mile distant. When I examined it with a glass it proved to be a group of

deer. I then proposed that we try to get a photograph of them. After hurried preparations we got into our canoe, my brother in the bow with the camera and I in the stern. The light was poor and the cove in which the deer were was in the shade; but as there was no perceptible wind I could paddle quietly. While I paddled across the lake we were compelled to keep in sight of the deer. When we were about 100 yards away the fawn on the left saw us, but for some reason the old doe did not see us. I kept paddling until we were near the deer, when the canoe hit a sunken rock. As we could not get the canoe off the rock, we took the picture. Just then the old deer scented us, and leaping out of the water disappeared in the woods. The 2 fawns ran to shore and one followed its mother. The other stood in the road, which is in the center of the photograph, and watched us for a quarter of a minute.

Henry S. Walker, Jr.

(See page 97.)

The photo of a coyote howling is a snap shot, printed on platinum paper. It represents my first attempt to develop a plate and print a picture. I don't know what kind of a lens is in my camera, but the camera only cost about $8, lens and all. The coyote was alive, though a pet one that I raised here at my ranch. I found the den, or nest, early last spring. In it were 4 young coyotes with their eyes just open. I killed 3 and took one home with me. I raised it on sweet milk and meat until 3 months old, since which he has lived with the dogs on scraps thrown from the kitchen. I was 10 or 15 feet away from him at the time I took the photo, and he howling his best.

E. N. Good, Chillicothe, Tex.

(See page 105.)

The picture entitled "Resting" was taken with a Bausch & Lomb lens. The buck weighed nearly 200 pounds and was badly wounded, one of its hind legs being shattered, or I should not have been so fortunate as to obtain this photo. The exposure was ½ second, U. S. 32, about 10.30 in the morning of a bright day, at Big Otter lake, in the Adirondacks. The print is on Velox paper. I use Carbutt's hydrochinone developer, which I mix myself.

Mrs. P. B. Kirschner,
Lowell, Mass.

(See page 105.)

SEARCHING FOR PICTURES.

C. A. Kolb, in the Camera and Dark Room.

Many amateurs have a lot of prints which excite little interest because they were taken in a haphazard way, without the least thought on the part of the operator as to the result; but just to see how they would look on paper.

What we must do is look for our pictures. If you find a bit of scenery you think would make a pretty picture, do not hurry to photograph it, but stop and consider. Would it not be improved by taking it from a different point of view, or perhaps by the introduction of a figure or 2, or later in the day when the sun is at a different angle?

Nothing is to be gained by haste, when with a little more time and thought you can improve your picture tenfold. A clump of trees, a country lane, a brook, cattle grazing, all make pretty pictures, but are greatly improved by the introduction of figures.

Never cut your picture exactly in half by the horizon line nor have the foreground take up so much of the picture that the remainder is perched in the upper corner. Study your subject; look at your ground glass and note the different points, and do not give an instantaneous exposure when there is no excuse for your not making it a time exposure.

Stop your lens well down, but of course do not use too small a stop. If your result is unsatisfactory, see what the trouble is and try again.

In portraiture, never use the plain side of a house for a background; shrubbery or grapevine is better. Never allow your subjects to stare into space, but have them rest their eyes on some object. This will do away with that unpleasant vacant look. Your subjects will invariably look at your camera, unless told otherwise, and if they do not lower their heads they will at least their eyes, which has an unsatisfactory effect.

Photographing babies is considered the most difficult branch of photography, but will be found easy if a few suggestions are heeded. The best way is to have someone at your back or right hand to amuse the child with a toy or the like. Then when you get the desired expression, make the exposure, which, for the reason that the little imps are seldom still, should be as short as possible. Therefore, use a large stop.

Never place your subjects in strong sunlight, but do not on the contrary tuck them away in a dark corner. Place them near the edge of a shadow where the light is strong. When placing subjects beneath trees, be careful of shadows. Look for pictures everywhere, in the woods, on the water, at home; everywhere you will find story-telling pictures which will amply repay you for your trouble.

CRUELTY CONDEMNED

Before the close of your photo competition, I wish to make a few suggestions to you, with which I think you, as a bird protector, will agree. During the past year a book on "The Home Life of Wild Birds" has been published. The illustrations are all made from life, by what the author terms a "new method." He cuts down the branch containing the nest and removes it to an open space in the full glare of the sun. He seats himself, with his camera, in a tent beside the nest and awaits the return of the parent bird. The author states that in several instances the entire nest full of young birds died from the effect of the heat. This method has not a single advantage to commend it, is cruel and is positively illegal. If it is allowable to remove a nest and carry it 50 or 100 feet away, it is equally allowable to carry it a few feet farther and take it home, which of course is against the law. This year there are many imitators of this method, and doubtless you will receive a number of photos taken in this way. Your action in regard to these will have much to do with the future of our birds. This method is a great retrograde movement in the present wave of protection, and must be stamped out. I have refused a number of photos taken in this way, and shall do all I can to stop the further practice of it. You are in a position to accomplish much in this matter, and I have noticed you do not shirk when the protection of birds is at stake.

C. A. Reed,
Editor American Ornithology,
Worcester, Mass.

ANSWER.

I am grateful to Mr. Reed for his timely caution. A number of bird pictures have been entered in my competition, but none that I can identify has been made by the method Mr. Reed outlines. Had any pictures turned up that had been obtained by this cruel process, they would have been promptly thrown out and returned to the maker.—EDITOR.

BACKED PLATES AND RAYFILTERS.

Please give me a simple formula for a quick drying and easily removed preparation for backing plates. Which will produce the best results as to color values, ordinary plates used with a rayfilter, or orthochromatic plates without the screen?

A. R. Sedgley, Wakefield, Mass.

ANSWER.

There is no published formula for backing which is not slow in drying and very sticky. You can get a cake of what you want from Edward W. Newcomb, Bible House, New York, for 50 cents. It will last you a year unless you are an enormous user of plates, and it dries quickly and removes with a rub of a damp cloth. His formula is not published.

After a long series of tests no definite answer can be given as to which will produce the best color values, ordinary plates used with a rayfilter or orthochromatic plates. The results depend on the light and the kind of plate used, the density of the screen, and, more than all, on the subject. Where exact rendering of color values is sought, and the subject contains a preponderance of colors below the screen, orthochromatic plates without the rayfilter would undoubtedly be better than ordinary plates with the rayfilter. If the reverse is true, the ordinary plates with a moderately light rayfilter would give the best results. Where speed is required, a fast orthochromatic plate without the rayfilter will give greater speed than ordinary plates with the rayfilter.

I do not, however, see the necessity of considering such an inquiry as this, for if it be possible to use orthochromatic plates the addition of the rayfilter gives a perfect combination, and where it is impossible to use them a rayfilter gives better results with ordinary plates than no rayfilter.—EDITOR.

HELPFUL SUGGESTIONS.

Blisters, which are so commonly encountered in making bromide or other prints, may be prevented by passing the print out of the fixing bath into a strong solution of common salt, and gradually diluting this until the print is washed. Blisters may also be prevented by using a weak fixing bath and leaving the print in for a longer time. It is the rapid dissolution of the chemicals in the film that causes blistering, and either of the above will afford a more gradual change.

Sometimes the insides of box cameras are not properly blackened, and if the black on the inside is glossy or worn off in parts, reflections are apt to produce fog on the plates. A good dead black varnish for woodwork may be easily made by mixing gold size with lamp black, or vegetable black, and diluting with turpentine to the consistency required. The less size used the more dead will be the surface, so use no more size than is sufficient to bind the mixture.

Negatives that are thin and flat, whether from under exposure or under development, if they are full of detail may be made to yield beautiful prints, by printing through one or more thicknesses of tissue paper, or by covering the glass side of the negative with any ground glass substitute.

A good effect is sometimes produced by

printing a small negative on a larger sheet of paper, and afterward tinting the surrounding paper to any depth desired by shading the printed part, and exposing the edges. Instead of trimming down prints that show a waste of uninteresting detail around a small picture in the center, it may be better to cut a mask to cover the part of the print desired and then print the margin to a suitable tint, possibly leaving a small strip of white between.—Exchange.

SOME CONVENTIONAL FALLACIES.

I used to think that films were both harder to develop and less handy to print from than glass plates. Further experience with films reverses this opinion. I also thought it necessary always to use orthochromatic plates and a color screen to get good color values and cloud effects in landscape work, until I discovered that transparent film had orthochromatic qualities that can not be surpassed. In addition to the acknowledged advantages of lightness and portability, the film support is superior to glass in being free from bubbles, and in the fact that it is not liable to crack or break. If the makers of transparent film would meet dry plate prices the dry plate would have to go.

I used to think it more economical, and handier as well, to develop Velox and other similar papers with a brush instead of by immersion, but I find I was mistaken, the latter way being generally more satisfactory.

When I first took up photography, I naturally fell into the error of concluding that a short exposure or an undertimed negative required stronger developer than one normally timed or over exposed. Of course the reverse is true. For an undertimed exposure or a snap shot, normal developer should be diluted with one to 3 times its quantity of water, and development allowed to proceed slowly.

I used to suppose that an ounce meant an ounce, and a dram meant a dram, always. Sometimes they do, but with experience I learn that the strength of chemicals varies, and that the only safe and reliable scale of weights and measures in the photographer's dark room is the hydrometer.—The Photo-American.

DEVELOPING.

There are a number of suggestions as to developing which should be thoroughly studied and carefully followed, to insure good results. Prints may be developed by immersion, or the developer may be applied with a tuft of cotton or a brush. If working by the former method, the developer should be put into a tray somewhat larger than the size of the paper you are using. To the right of this place a bath of water in any convenient receptacle, and next to that the tray for the fixing bath. The prints should be immersed edgewise, face up, in the developer, and they should be evenly covered therewith at once to insure uniformity of development.

To develop by the cotton or brush method provide yourself with a pane of glass a little larger than the print to be developed and pour the developer into a cup or tumbler. After the paper has been exposed, place it face up on the glass, thoroughly saturate the cotton or brush and pass it quickly over the surface of the print, applying the developer evenly and abundantly. The image will appear gradually, if the exposure is right. If your print flashes up quickly and at once grows black it is a sign you have over-exposed in printing or that you need more bromide in your developer. If under-exposed, your print will, on the contrary, develop slowly and it will finally be found weak in important parts.—Velox Manual.

AMATEUR PORTRAITS.

To attempt portraits of his friends is one of the most insidious temptations of the amateur photographer. To all who contemplate such a use of their cameras Punch's famous advice "don't" applies. The reasons are legion. To tackle such a task is to subject the strongest friendship to the severest possible strain, and, even when a large measure of success attends the effort, it must not be expected that the model will be satisfied. The model of the amateur is a much more exacting critic than the model of the professional. Because he is a friend he thinks he can take greater liberties and say nastier things. An amateur I know did his best a little time ago to take a portrait of a friend, and he really secured an excellent likeness. What was the result His friend almost tore his hair with rage because he had been made to look "so old." The model in question confessed to 60 years, and the photograph certainly did not make him look any older. No, the professional photographer, with his retouching, has so impressed people with the idea that it is the business of the camera to make models look 10 or 20 years younger than they are, that the amateur, as he values his own peace of mind, will cry off all invitations or temptations to take his friends.—The Traveler.

A SINGLE SOLUTION DEVELOPER.

Over a year ago I read in RECREATION a formula for a one solution developer. I made up a quantity and found it superior to anything I had before used. Now I have lost the formula. Will you kindly

give me one that will yield great contrast?

P. S. Jones,
Port Washington, S. C.

ANSWER.

No. 1.

Water	16	ounces.
Oxalic acid	¼	"
Pyrogallic acid	1	"
Metol (Hauff)	¼	"
Bromide potassium	16	grains.

No. 2.

Water	64	ounces.
Sulphite sodium (crystals)	8	"
Carbonate sodium	4	"

To develop take

No. 1	1	ounce.
No. 2	5	ounces.
Water	2 to 4	ounces.

In summer, or when soft, delicate negatives are desired, use the larger quantity of water.

The above is a capital developer in 2 solutions. Use a tray containing water, 10 ounces; bromide of potassium, 1 ounce, and dip your plate in that 2 minutes at a time as needed during development. You will in that way get more contrast than you ever saw before.—EDITOR.

PRINTING ON SILK.

The silk must be well washed to free it from dressing, then ironed flat, and then immersed 5 minutes in

Arrowroot	4	grains
Ammonium chloride	4	grains
Boiling water	1½	ounces

Hang up to dry, iron again, and brush over with a solution of

Silver nitrate	20	grains
Water	1	ounce

Dry, then print on in the usual way. Wash and tone in any ordinary borax or acetate bath of half the usual strength, and fix in a hypo bath of the usual strength.

Or an easier method is, after washing the silk, to paint it with

Uranium nitrate	150	grains
Silver nitrate	15	grains
Distilled water	¼	ounce
Methylated alcohol	¾	ounce

Dry in the dark, print deeply, wash in weak nitric acid and then in water and iron. This gives a dark brown image, which can be toned in a weak gold bath.—Photo Times.

THE USE OF BROMIDE OF POTASSIUM.

All developers require the addition of a certain quantity of bromide of potassium to keep the whites cleared, and it is most conveniently used in 10 per cent. solution, which is made by dissolving one ounce of bromide in 9 ounces of water. As the quantity of bromide necessary varies with the age and dryness of the paper and the purity of the water and chemicals used, it can only be given approximately. It is easily determined, however, by first adding the quantity given in the above formula to the solution and then making a trial test by laying a half-inch strip of Velox over an important portion of the negative and developing and printing it in the regular way. If the whites appear fogged, add a few more drops of the bromide solution. If, on the contrary, the whites are clear and the blacks have a greenish tinge, there is too much bromide in the developer and it will then be necessary to add a little of a stock solution of developer that contains no bromide. To avoid this latter necessity, in adding to the quantity of bromide do so slowly, drop by drop, making tests as directed.—Photo Record.

SNAP SHOTS.

Metol-quinol developer will keep a long time after dissolving, if put in bottles which it fills to the neck, the bottles being then tightly corked and placed on their sides, so the bubbles formed by the confined air can not rise against the cork. This prevents oxidation of the developer while in the bottles. If the operator wishes to make a few prints at a time and to use the least possible quantity of developer, it is a good plan to have bottles of different sizes at hand. Select each time 1 of such a size as to be entirely filled with the developer that is left, in order to insure a satisfactory condition of the developer when it is used again.—Photo Record.

The Eastman Kodak Company announce another photo competition, in which prizes to the value of $4,000 are offered. One-half of this amount is to be paid in cash, and the other half in Kodaks. Pictures, in order to be eligible in this competition, must, of course, be made with Kodaks or with Brownie cameras. Write the Eastman Kodak Company, Rochester, N. Y., for circular giving full particulars, and say you saw the announcement in RECREATION.

Note that when just enough bromide has been added to keep the whites clear, the blacks may have a bluish tinge. If then more bromide is added, little by little, and a test print made after each addition, the tone of the blacks will be seen to change gradually from bluish-black to pure black, and if still more bromide is added, to greenish or brownish blacks.—Photo Record.

To an amatuer photographer the articles published on the beaver pictures are worth a year's subscription to RECREATION.

A. Dawdy, Tacoma, Wash.

EACH TRAILING OUR FIERY SERPENT OF HEMP AND BOTH FEELING IT WAS LIKELY TO BE OUR LAST RIDE.

RECREATION

Volume XVI. MARCH, 1902. Number 3.

G. O. SHIELDS (COQUINA), Editor and Manager

FIGHTING A PRAIRIE FIRE.

RAMSAY MACNAUGHTON.

Three nights of anxiety had told on the boys of the camp, and they slept fitfully, as hunting dogs sleep, with one eye open and mind alert. Indians of the turbulent Turtle mountain tribe had been for some time in ominous evidence. Ultimately they went on the warpath, and indulged in a little old time massacre of some of our scattered neighbors until relieved of their bloodthirst by the lead cure, administered by Canadian regulars. But it was not fear of Indians that ailed our camp. We were cow herders, good rifles were numerous and there were skilled hands to use them.

It was matches that were in earnest demand and more conscientiously carried than firearms. It had been a wonderful summer for grass. For 50 miles in all directions the herbage stood high, thick and dry, its vast expanse broken only by trails and more rarely by fire guards. The camp of 8 half underground shacks, with 5,000 cattle, extensive corrals and sheds, sundry horses and much else, was within one of those guards. Fires had been seen in the distance for a week, great mountains of smoke by day and a lurid horizon of flame by night. Responsive to every fickle flight of changing wind, danger sometimes approached us, sometimes fled away. Of 16 miles of fire guard, double plowed, with 100 feet of space between, 1-16 mile had been missed, and now, with the ground frozen like flint, nothing could be done to amend the oversight.

The grass, unlike that of the States, had not died and rotted, but stood perfectly cured and tinder-like; and not a flake of snow had fallen. For 3 days and nights a great head fire had threatened the little break in our guard; sleep was impossible and nervous prostration imminent. Fire once through the break, doomed the camp and imperiled life. There was no other natural or artificial guard within 40 miles. Attempts to locate the worst of the fires, raging on every side, were futile. Appearing near, they yet proved distant, the tract still unburnt being so vast.

The impromptu fire department had become well organized and trained, and was equipped with apparatus at once unique, laughable and effective. Everything with wheels was pressed into service and loaded with enough water barrels and fire mops to outfit a battalion. The mops were 10 feet long and shod with old shirts, trousers and other clothing. With them fire could be beaten out and kept from stacks and buildings. Near by were a number of green cow and horse hides, soaked for days in creek or puddle, with 2 long ropes on each by which they could be trailed from saddle; a contrivance as effective in its place as any city water tower or steamer.

On the last night only 2 men out of 20 were left in camp. Gangs armed with mops had gone to do what they could. Riders in pairs, with a soaked hide between them, had gone to find and run down side fires. On finding

one they would drop the hide between them and, with ropes run out to their utmost extent, would ride briskly, one on each side of the thread of fire, wiping it out with the hide at the rate of 20 miles an hour. Usually they could follow the line to its end; at any rate, they could smother miles of what a change in wind could instantly convert into a madly rushing head fire.

The prairie is never level, but has a gentle and often a considerable roll. A great plain is as inscrutable and puzzling as are woods and mountains, as 2 of us realized that night.

We were left in camp while our fellows were riding in various directions. The dogs had grown sullen and the stock restless. Suddenly, at midnight, there was an uproar and an attempted stampede. A fiery furnace, seemingly heaven high and world wide, was making straight for camp. It might be 10 miles away, it might shift or die out; but it was our business to prevent it from reaching the camp, and we could afford to take no chance.

Our ponies stood saddled and picketed at the cabin door, and our last resort fire extinguishers were ready for use. Each of us had a stout rope coiled on saddle, one end looped on the horn, the other trailing and well frayed out. Two one gallon cans of kerosene and abundant matches completed the outfit.

If the danger was advancing, there was no choice but to start another head fire between it and the fire guard. It was not likely to jump the 2 plowings and the 100-foot burn between them. If it should, that would end the settlement.

The prairie proved no tableland as we rode straight toward the fire. We tore through the hollows, seeing and feeling nothing; but the rises brought us into smoke and glare, and the warm air rapidly grew hot. Suddenly, on the last rise, hell opened below us, and not a mile away. The sight shut out the world and showed an endless sea of fire. Driven by the wind, it was advancing 20 miles an hour. Our best gait was not over 12, with constant risk of broken legs from badger holes, and it was death to fall.

We turned back toward the fire guard with the roaring flame seemingly at our heels, and with us raced many wolves, some antelope and deer and any number of ground game. Within a few hundred yards of the guard we dipped the ends of our ropes in kerosene, lighted them, and started in opposite directions, each trailing our fiery serpent of hemp, and both feeling it was likely to be our last ride.

Each man succeeded in reaching opposite ends of the guard, but with only a few minutes in which to find and throw himself on a small burned-over spot. There, with face on the frozen ground, he was no longer in danger of roasting, though nigh to suffocation. Each pony, crouching, trembling and snorting, stuck instinctively to the few square rods of safe ground.

On roared the appalling sheet of flame. It had come 70 miles in a few hours. By some freak of wind or land formation, it narrowed to less than 4 miles in width before it reached the guard. Striking that simultaneously with its entire width, it went out like flashed powder, leaving the plain in darkness and our camp in safety.

"Hickory, dickory dock,
The mouse ran up the clock"
Of the stocking, and then
He ran down again
When he found it was only a sock.

HUNTING THE BIGHORN IN BRITISH COLUMBIA.

STANLEY WASHBURN.

Away up in Northwestern Canada, over 100 miles from the boundaries of civilization, there is a region hemmed in by great mountain ranges of rugged rocks and snow-capped glaciers. Up to within a few years this country had never been penetrated by white men, and even now there are many valleys and inaccessible nooks and corners that no human eye has ever beheld. There mountain sheep dwell in great bands, undisturbed by the rifle of the hunter and the prying eye of the tourist. Yet this security, which has sheltered the timid sheep through numberless generations, is soon to pass forever before the invasion of civilization and the still more devastating advance of the lawless and butchering bands of Indians that flood the mountains every fall, slaughtering the game in every direction. But even the Indian, who, with his squaw, papooses and few ponies, penetrates well nigh every nook and cranny in the mountains, has not yet reached this country, with the exception of old Jimmie, who for years held the secret of the passes in this district.

A VALLEY IN THE SHEEP HILLS.
150 miles North of Loggon, on the Canadian Pacific Railway.

In this vast region is a valley, within a radius of 10 miles of which 3 great rivers head—the Athabasca, pouring its waters into the Arctic ocean; the Saskatchewan, which flows into Hudson's bay, and the Brazean, tributary to the Saskatchewan.

This valley is about 7 miles in length, growing narrower and narrower toward its upper end. Great barren peaks rise sharply on both sides. At the head of this valley is a little basin, perhaps half a mile across. Nestled down amidst the rocks and mossy, stunted foliage that one finds above the timber line (for the altitude there is over 6,000 feet) are a few cold, clear pools where the mountain sheep love to drink and on whose shores they bask in the sun. A few hundred yards farther is a sharp turn, and we stand on a ledge falling away hundreds of feet. Around the base of this ledge foams a mountain stream, turning sharply down the valley, which stretches away at our feet. This is the valley of the headwaters of the Brazean, which has been entered by white men but twice. A few years ago a party pushed a short way down this stream, and last summer it was again explored for some 40 or 50 miles by an expedition, of which I was a member. Between the valleys of the Saskatchewan and the Brazean there is a pass, which has hitherto been supposed impassable, but which last summer was crossed for the first time with pack horses.

In this defile one of the members of the party shot one of the finest specimens of mountain sheep I have ever seen. It was early in the fall, and the rams were moving a good deal alone, as could easily be seen from the frequent tracks of single animals in the soft ground about the pools and streams. About one o'clock the outfit crossed the head of the Brazean, and were wending their way along an old sheep trail, winding among the great boulders lodged on the side of the mountain. The 15 horses were strung out over a considerable distance, and the unevenness and roughness of ground made it most difficult for the pack animals to pick their way. At a bend in the trail, on a pile of loose rock and gravel not 100 yards away from the first pack horse, lay a great ram, asleep in the sun. In a moment we were all hurrying to the front, unloosening our rifles and filling our magazines as we ran. At the unusual sound the ram was on his feet with a bound. For a moment he stood,

with his great horns silhouetted against the background of the mountain side,

A PATRIARCH.

gazing at the pack train. He must have taken the horses for big game of some kind, else surely he would not have hesitated that fatal moment. Before he could turn, a soft nosed 30-40 Winchester bullet tore through his chest and out of his side. He was standing on the edge of a little dip, and he immediately disappeared from view. In a moment we saw him staggering painfully up the other side. Almost simultaneously 3 rifles cracked. The ram stopped, sank to his knees, and his great horned head rolled over on the ground.

He must have been a patriarch among the sheep, for his horns measured between 15 and 18 inches around the base and had a spread of 22 inches. The dimensions are uncertain as there was no rule in the party. His carcass weighed over 300 pounds, and made our heaviest pack animal stagger.

Farther down the valley the marks of the sheep were so thick that for hundreds of yards there was not a square foot that was not dotted with tracks.

Some 15 miles to the Northwest of this spot is a plateau at an elevation of 7,000 feet, with mountains rising an additional 4,000 feet. To the left is a razor-backed peak called Mount Wilcox. It rises some 3,000 or 4,000 feet above the plain on one side and on the other its barren slopes fall sharply away 8,000 or 10,000 feet into the headwaters of the Athabasca, which filter down from the toe of a great glacier.

On the sides of Mount Wilcox we counted at one time over 40 sheep. The position was inaccessible, but, by an arduous climb, we came on a bunch of the animals from above. As the party had been without fresh meat for weeks several sheep were shot. It was then about 8 in the evening, and by the time we had dressed our game it was nearly 10. We were 12 or 15 miles from our camp, and bivouaced in a little grove of pine trees just below the timber line. As we sat on the soft moss about our roaring camp fire, with the glaciers thundering in the mountains about us and the Northern lights tinging the snow caps with their silvery glow, we all agreed that there is no morsel more delicious to the tired hunter than Rocky mountain mutton roasted over a camp fire.

THE GLACIER OF THE BOW.
30 miles North of the Canadian Pacific Railway.

LAID OUT.

THROUGH COLORADO CANYONS.

DR. J. E. MILLER.

Becoming tired of office work earlier in the season than usual, a friend and I resolved to make a trip down the canyons of the Colorado.

From Glenwood Springs, on Grand river, to the Cascade canyon, is fully 300 miles. To cruise that distance in such a boat as we could build was no small undertaking. The craft we constructed was 17 feet long, flat bottomed, with a watertight compartment in each end. To protect us from the sun it had an awning extending from stem to stern. We carried plenty of pitch, white lead and other materials to repair possible damage.

We were so often warned of the dangers ahead that it was a relief to be at last fairly on our way. The first rough water was only a mile below the starting point. A few people had gathered there to see us take our first plunge. We were a little nervous as we approached the cataract, not knowing how staunch our boat would prove under her heavy load. However, she rode the swells like a duck, and we went our way with lighter hearts.

The first day, when nearing a fall, we landed and sized it up. That soon grew tiresome, so, unless there was an unusual roar ahead, we stayed in the boat and took things as they came. If that course did not contribute to our safety, it at least furnished plenty of excitement.

We ran late on the evening of the second day, hoping to reach a point from which we could telegraph to the anxious ones at home. Rounding a point we heard the loud snarl of angry water ahead. By standing on a thwart we could see the river rushing under a shelving rock on one side and dropping over a ledge on the other. Both looked ugly enough, but we decided to take the fall. So sitting well back and getting all possible speed on the boat, we let her go. She took the jump bravely, but stuck her nose so far under that the rollers easily completed her discomfiture, and she settled to the water's edge. We had taken the precaution of attaching long ropes to each end of the boat, and by means of them succeeded in pulling her ashore. We camped where we landed, building a big fire to dry our effects. On opening the watertight compartments we found all as dry as a bone. To guard against another ducking we nailed rubber cloth across the forward part of the boat.

The third day we went over exceedingly rough water in a box canyon, and a little farther on we encountered the worst rapid, that far, on the trip. The river dropped 25 feet in ¼ mile. The channel was so narrow that in places the boat could hardly pass. The rapid is a succession of curves and is everywhere studded with boulders. As we had been warned not to run that rapid we went ashore and took a look at it. First, there was a rough stretch of about 50 yards, then 100 yards of smooth water, and then the terror.

Not seeing any other way to get by, we decided to run it, all standing. A huge boulder rose 20 feet above the water in the center of the channel at the first rapid. That we grazed, and barely missed running down its twin a little below. On we rushed, wave after wave dashing over us. It seemed but a moment until it was over and we were drifting on smooth water.

Just below the rapids we passed a man fishing.

"Did yer come tru de falls?" he called.

"Yes," we said; "from Glenwood."

"Yer can't drown fools anyhow," he replied as we sped by.

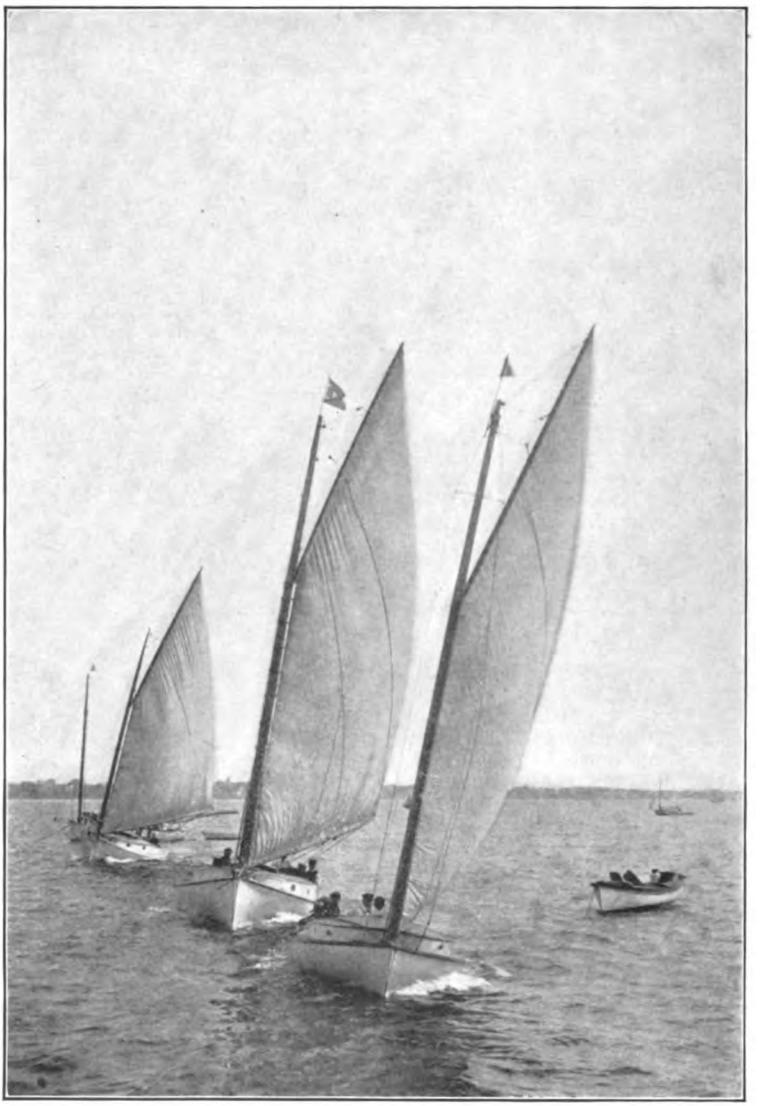
Next we passed through the fruit belt of Grand valley. If any tiller of that soil arraigns us for the theft of plums and peaches we shall have to plead guilty.

At Little Creek valley, 15 miles above Moab, we saw picturesque rocks, where it required no great stretch of the imagination to behold beautiful castles, spires and domes, and gigantic figures of men and animals. Farther down the river was a red sandstone spire, hundreds of feet high. On its top was balanced a perfect sphere of sandstone. The grandeur of those canyons is indescribable.

Moab is a quaint Mormon town in a beautiful valley. There are the ruins of a structure built by the cliff dwellers. We spent a day looking for relics, with little success.

After a week's stay at Moab we continued our journey. We left our boat at the first cataract and walked down as far as we could in one day, slept on the sand that night, and returned to the boat the following day. We took a few pictures and then began the return, on which we saw the grandest scenic effect of the trip. We were caught in a severe rain. During and after the storm countless waterfalls poured down the sides of the canyon; not little trickling streams, but mad rushes of water, all taking color from the rocks over which they passed.

Of hunting we had none; there is no game in the canyon. The scenic wonders of the river alone make the trip worth taking.



AMATEUR PHOTO BY D. W. FLINT.

IN FULL SAIL.

Winner of 2d Prize in RECREATION'S 6th Annual Photo Competition.

WITH THE LEAPING OUANANICHE.

J. L. MOTT, 3D.

A finer, more gamy fish than the ouananiche does not exist. All hail to him and to his fighting courage. Last summer I spent nearly 3 months on Grand lake, in Maine, and during that time my wife and I enjoyed many days' sport on the stream. One day especially comes back to me and brings delightful memories.

It was the 29th of August. We had come down with our guides from up the lake to try the fly on the stream. My wife and her guide went about half way down to the falls, while Joe and I started in by the old tannery. It was an ideal day; not too bright, yet not absolutely dark, so I put on a single dusty miller and cast into the pool. A swirl, a gleam of a bright something in the water and the reel commenced its merry little song. Up and down, backward and forward, in and out of water rushed my prize. Oh ye who are lovers of the fly, of the waters, of the woods! What grander feeling is there than when the rod bends hard, the vibrations of the fish reach your very heart and you think him a 5-pounder sure!

AMATEUR PHOTO BY LAURENCE MOTT.

RATIONAL TOGS FOR A WOMAN ANGLER.

Sixteen minutes brought the beauty to the net, and he weighed 4¼ pounds. Three more of the same rewarded my best efforts on that pool, and we dropped down to where my wife was having a glorious battle with 2 fish.

For fishing any kind of salmon I use only one fly. Possibly it may be that having become used to doing so on the Restigouche I can not change; but the fact remains. I am not really happy unless but one fly graces the leader. My wife, however, prefers 2. I fear it is because she can get 2 at once. That time she succeeded.

With the angler's usual freedom I offered all sorts of advice and coaching, all of which were rejected with scorn; and, indeed, I never saw prettier handling of fish. They gave up the ghost in 12 minutes. One weighed 3½ pounds and the other 2¾.

From there we went on down to the head of the falls, and leaving our canoes proceeded on foot across the ledges to the Rocky pool. A magnificent bit of water it is, too. The fall into it is about 4 feet, and the depth is 12 or 14 feet, making it an ideal place for fish to lie. Madam cast close under the falling water. Heavens, what was that! The cavernous mouth, large head and heavy shoulders of a sea salmon rolled lazily out of the foam, and missed the fly. Patiently and for hours we cast and cast and cast again, with every sort of a permissible lure, but all in vain. Our hearts were nearly broken and we did not feel entirely ourselves again until the incident was forgotten in the excitement caused by the fierceness and rapidity with which the fish were rising all along the pool. It was a continuous splash; whirr-r-r-r-r all the time.

As we tired the fish out the boys carefully netted and weighed them in the net, the weight of the latter being subtracted; after which the fish were gently slipped back, unharmed but tired, into their native element.

So it was all day, until our arms ached and our reel fingers were so tired we could scarcely move them. The summing up of the day showed these results: 48 salmon, averaging 3½ pounds apiece. Four of them we kept for eating purposes; 44 are still waiting for someone's fly.

Of course we carried a camera, as every fishing or hunting party should. We got some fine pictures, best and most valued of which was of a timid doe that came out of the woods and tarried just a moment in the open while we were resting. I made a telling shot and it is a great satisfaction to know it did not hurt her. She still lives and I hope some other camera hunter may get as easy a shot of her as I got.

Joe and Charlie Sprague were our

AMATEUR PHOTO BY LAURENCE MOTT.

THE RESULT OF A PAINLESS SHOT.

guides. The latter is probably known to some of the readers of this article as "Bungie" and "Kid." Two better guides I have never had in my service, though in my hunting and fishing trips of the last 8 years, I have had many. Always obliging, anticipating one's slightest wish, hard workers and clever at it, too, with a thorough knowledge of how and where to fish or shoot, I recommend these men as being all that can be desired.

While fishing we stayed at Frank Ball's. He is an ideal host and his wife is a capital sportswoman. Their wish is to please, and they do it thoroughly, leaving nothing to be desired.

AMATEUR PHOTO BY MRS. E. E. LAWRENCE.

WILD GOOSE ON NEST.

Winner of 11th Prize in RECREATION's 6th Annual Photo Competition.

Made on Lovell Plate.

THAT BOY.

LEWIS A. BROWNE.

"It's funny 'bout that boy o' mine;
Jest watch him there at play,
A-buildin' up a snow man fine
An' luggin' it that way.
He's in it up above his knees,
He says it does him good;
(He also says he's sure to freeze
A-splittin' up my wood!)

"He went a-fishin' t'other day;
The wind was cold an' strong;
He didn't mind it anyway,
Jest bobbed the whole day long.
Caught 7 pick'rel, big uns, too,
An' they looked mighty nice;
(He said he'd freeze that day, he knew,
A-helpin' me cut ice!)

"He likes to snowball with the boys,
An' he can slide all night;
He says sich things is 'winter joys,'
An' makes him feel jest right.
He's visitin' his traps to-day,
Back 6 mile in the woods;
(Too cold to go a mile to town
To buy some household goods!)

"It does seem kinder funny, now,
How he is put together;
Can't work a bit, an' yet, I vow!
Can play in any weather.
He's mine an' I won't make a fuss,
But 't makes me all unstrung;
(Well there, I guess he's 'bout like us
When we were jest as young!)"

"BIG UNS, TOO"

AMATEUR PHOTO BY D. O. TOLLES.

IN THE RUSH OF WATERS.
Winner of 13th Prize in RECREATION's 6th Annual Photo Competition

JERRY POLAND AND THE GRIZZLY.

REV. FRANCIS HOPE.

This is a true story of early days in California, and this is how Jerry tells it:

"In '50 I went to Cachville, in El Dorado county, prospectin'; and strikin' payin' dirt decided to stay a bit. Others come and purty soon we had quite a settlement and even a preacher. Then the folks built a little sort of a church. One Sunday mornin' 6 of us men and one woman—for women was mighty scarce round minin' camps in them days—was at church. The preacher had got well into his sermon, roarin' and tearin' in the Methody style, when up comes a feller and pokes his head in the door and says, 'There's a b'ar.' Sech a scatterin' you never seen. In 2 seconds there warn't a man left 'cept the woman and the parson, but he kept right on exhortin' wus than ever. It did seem kinder mean to leave like that, but when them other chaps cleared out I had to make a break too; and it warn't every day a b'ar come around on Sundays. So I jest wiggled out in the purlitest way I could.

"By the time I got to my shanty and got my shootin' iron the rest was goin' over the hill on the dead run. I followed them, and the last thing I heard was the preacher layin' down the law and the prophets, tryin' to get that woman saved anyhow.

"As the other fellers had the start of me I took it purty easy down the trail till I come to the mouth of a deep canyon full of thick brush and mansanita bushes and rocks. I went in, and the furder I went the less I liked it. While I stood deliberatin' whether I'd better go on or quit, suddenly there was a rush just above me, and with a bawl you could have heard 5 miles off, old Ep'raim was on me. I hadn't time to do nothin'. He came with his mouth open and his ears clapped down tight agin' his head. Jest as he lit on me I managed to grab them ears and down I went, with him atop of me. What with the hillside bein' steep and him a-comin' so fast, the old feller went clear over me. As he was goin' I put my feet to his belly and give him a h'ist that was a considerable help to him, and as I was a holdin' his ears at the same time he turned a clean somersault and landed on his back below me. He was the most surprised b'ar you ever seen; didn't know what struck him. 'Peared to think somebody had hit him with a sandbag and he was bound to find out who it was. He ups and looks this way and then that, in a stupid sort of fashion. I laid low and said nothin' but you bet I did a power of thinkin'. Finally he comes up the hill a bit, sniffs the air, shakes his head once or twice and trots off; and mighty glad I was to get back again in time to help the parson out with the doxology."

THE GOOD CHAP.

THEODORE ROBERTS.

I met a chap in the woods one day
With a gun, a pack an' a bearded chin,
An' hands that was hard, an' a "well-met" way,
An' a guide who smelt of rawhide an' gin.

We shared our bread an' pork an' tea;
He smoked my 'baccy, I sang a song.
I was lookin' for spars, an' he
Was stalking whatever might come along.

I come to Noo York to work. One day
I met a gent with a shaven chin.
He hadn't no guide, but he knew his way,
An' he knew me too, an' he says, "Come in."

The waiters stared, but I didn't care;
An' I et his oysters an' drunk his wine.
Oh, he is a choke-bore sport for fair,
An' he writes wolf stories—a scad a line!

He's shot in the West, an' South an' East.
He's taken his liquor in every clime.
By jinks, I'll buy his books some day
An' read 'em, too, if I get the time.

AMATEUR PHOTO BY EVAN LEWIS.

WILLOW PTARMIGAN ON NEST
Winner of 7th Prize in RECREATION's 6th Annual Photo Competition
(See page 246.)

AMATEUR PHOTO BY R. H. [illegible]

ALL IN A ROW.
Winner of 6th Prize in RECREATION's 6th Annual Photo Competition.

THE MASTER AND TENNY.

J. L. TOOKER, JR.

It was a warm October afternoon. The local sportsmen had unbuttoned their vests and, deserting the Hotel Central's reading room, had sought the porch. There they tilted their chairs back at a comfortable angle and discussed the game laws and the outlook for the coming open season.

The sparrows were making an unusual commotion overhead, flitting from lintel to lintel. Their wild cries of alarm interrupted conversation until a sudden flash of gray through the scanty but gaudy leaves of a maple, and a cry of pain, told of a hawk's successful strike for a midday titbit. At that moment the landlord emerged from the reading room, an open letter in one hand and a chair in the other.

"I've got a letter from Bill," he said, putting down the chair and seating himself. He zigzagged the back legs forward by quick jerks until he had gained the desired angle and continued,

"He says Tenny is the most knowing pointer he ever broke, and that I can lay odds on him against any dog in the county. We must arrange a date for Ernston and give Tenny a trial with those birds that have been so carefully educated in shot dodging."

It was then and there settled that the second day of the season, the first day falling on Sunday, should see Tenny's trial.

The district mentioned by the Master of Tenny had been the rooting ground of game hogs, and their beastly work had been thorough. Yet it was known that 5 or 6 small coveys could be found within a radius of 6 miles of Ernston station. Those birds were credited with wonderful acumen, and it was generally believed that if their bodies could be examined many shot marks would be found thereon. They were the survivors of many raids by pot hunters, and it was a valuable dog that could go up successfully against such veteran birds.

Tenny had become the Master's idol when about 4 months old, and after running about the hotel a while, had been sent away for a course of training. When he was graduated with the diploma embodied in the letter from Bill he was a yearling. Though the Master could not point with pride to any particular sire or dam in Tenny's line of ancestry, he was sure the dog would prove a good one if only because a good sum had been expended for his education.

Tenny was fairly good looking, sleek of limb and body, snow white, with a pretty brown patch over each eye, and a small brown square at the root of his long, whippy tail. His head was a trifle too stubby, but had one of the party present at the time of Tenny's arrival home given breath to such suspicion he would not have been invited to the bar when the Master celebrated the event.

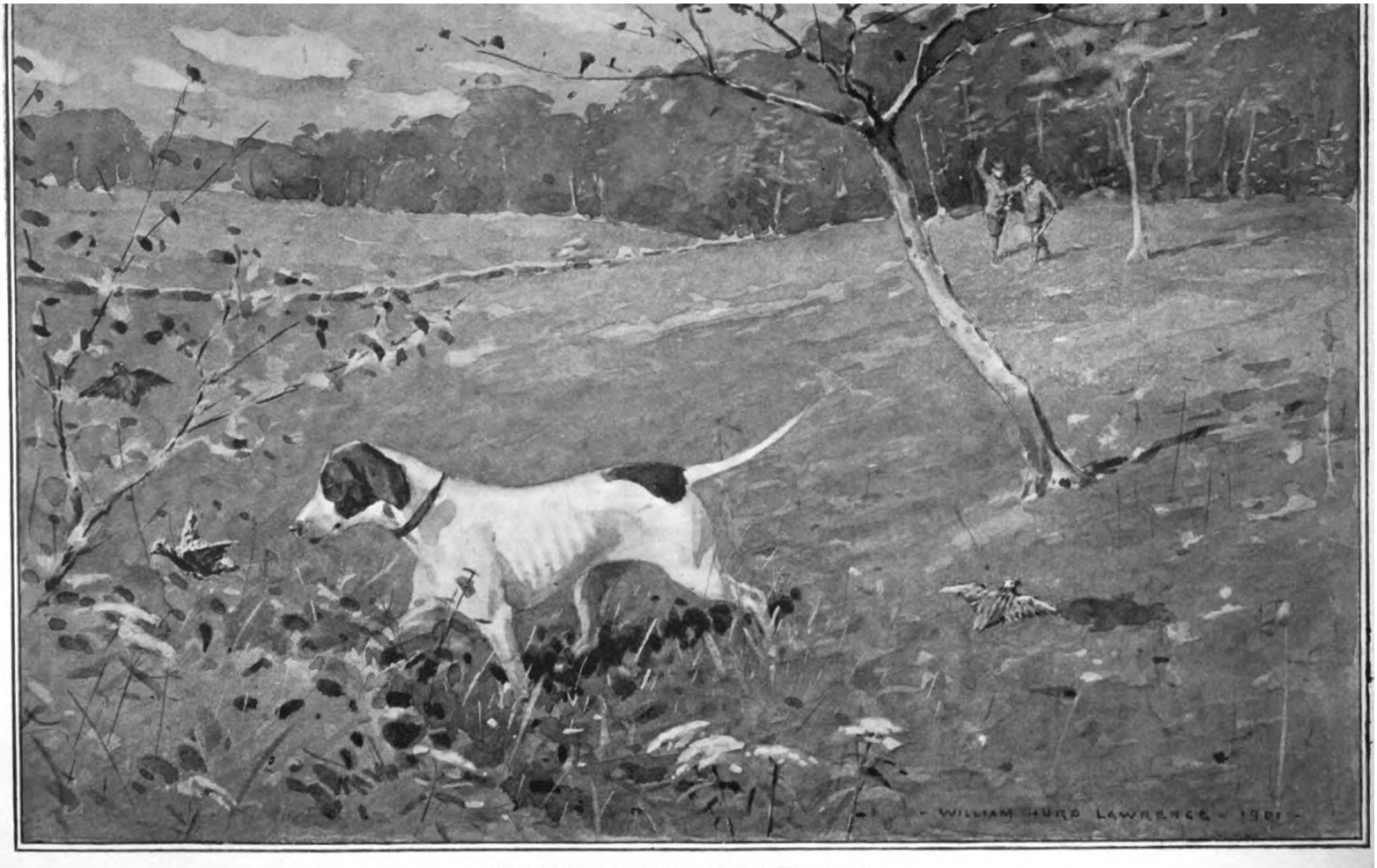
Time rolled by quickly until the open season was at hand. Of all who promised to witness Tenny's *debut*, only the Master and one whom I shall call Jim were on to see the result. Those 2, with Tenny, took the field one November morning. Guns were soon removed from their cases, and the trio went forth in all the glory of the new born day.

Hardly had they started when a most exhilarating spectacle came in view. Not 60 yards away a covey of quails emerged from the scrub oak and, crossing the road, entered the stubble to the left. Tenny nosed the tracks with a knowing look, and, crawling beneath the fence, started down the trail with head swinging as though hung on a pivot. His followers had barely mounted the fence when a whirr of wings gave notice of flight. From the center of the field tiny brown bodies arose and sped far away to the Southwest.

Tenny continued down the scent, merely glancing at the birds as they rose, circled their farthest advance, and started back over the field. His ranging qualities were immense. When he answered the Master's urgent calls all the sparrows and other small birds had been forced to seek pastures new.

Down the slope went the trio into the valley where the baby birches shot their pipestem trunks up to the sunlight. Then ascending the hill, they seated themselves on a fallen pine for a short rest. A chipmunk perched on a neighboring stump gave evidence, by the desultory fall of the cuttings, of his interest in the pantomime.

"I have often been amazed by a quail's long flight," said the Master, "but that last aerial display beats all ——. See that beautiful little creature?" As the Master pointed in the direction of the stump Tenny caught a glimpse of the mite of a squirrel, made a dash, stopped, and looked askance at the magical disappearance of the little beast. A slight noise attracted his attention in another direction. Away he bounded, regardless of the Master's



HE DASHED STRAIGHT INTO THE COVEY.

summons, and the crackling of the newly fallen leaves told of a chase.

"Rabbit?" was the Master's query.

"Guess so," responded Jim.

Then they took up their guns and trudged on toward Otts' field, a mile distant, where the Master believed quails of a quieter disposition could be found.

When Tenny returned from the chase he headed the procession, and little birds that culled seeds from wayside weeds took flight and were scattered to the 4 winds.

The field was entered at the lower end, where the soil had been tilled for corn. A flock of crows were seeking stray kernels. They flapped idly to neighoring trees and did sentinel duty, calling "Caw, caw, caw," until the danger passed.

Ranging through the rye stubble in the upper field, Tenny suddenly wheeled about, hesitated and gave signs that sent a thrill through the Master's veins. Tenny heeded not warning calls, but sped along the scent as fast as his nose would guide and his legs carry him. A good 100 yards away he dashed straight into the covey, scattering the birds to all points of the compass and nearly catching one with his teeth as it left the ground beneath his nose.

A voice from the hedge was wafted across the field in the clear morning air,

"Give that cur a charge of shot!"

"I recognize your ear marks," shouted the Master; "your cowardly advice implies loss of a ground shot."

They walked to the hedge and passed the wooded slope. There the Master said,

"I would tie Tenny to one of these trees if it was possible to return this way."

Tenny was then proving his bird finding ability by causing a distant whirr of wings. The 2 and the dog emerged from the woods and descended into an open. A small brook coursed through the green, and beside it they seated themselves on a mossy mound and quenched their thirst. Great bunches of catbrier were scattered here and there, and luxuriant grass carpeted the aisles formed by the patches of thorns.

Tenny, satisfied with his chase, came gamboling down the brook and, dropping on the knoll, nested his head on the Master's knees. The Master said,

"I love dogs; all are as the Creator made them. I would as quickly feed a mongrel as a thoroughbred. When an animal falters or fails I hold it is the fault of its trainer, and I am satisfied to settle the matter with the man at the first opportunity"

A screech owl, perched on a low pine branch, with a half devoured field mouse in his claws, blinked and twisted his neck as he watched the trio disappear down the course of the brook. They crossed a bog by stepping on the thick masses of ferns and grass that formed about the roots of spice bushes, and gained a field in which stood a deserted house. Then their footsteps led them to a caved-in cistern, from which they rescued a nearly famished hare.

Tenny was called and tied to a fence post, and what was left of bunny was taken to a place of safety. A look from its great brown eyes repaid the men for their trouble. Going thence, with the discontented Tenny at the end of a cord, they went along the road toward the West. A clay bank marks the place where the dog was given his freedom. Beyond the bank they entered the scrub oaks at their left, the Master several yards in the rear. There was a sudden whirr of wings, and in an instant Jim dropped flat on the ground. He had looked straight down the barrels of the Master's gun and imagined he saw the cardboard wads growing larger and larger. But he was mistaken. The Master had taken no chances. Tenny, coming down wind, had run the birds between the hunters.

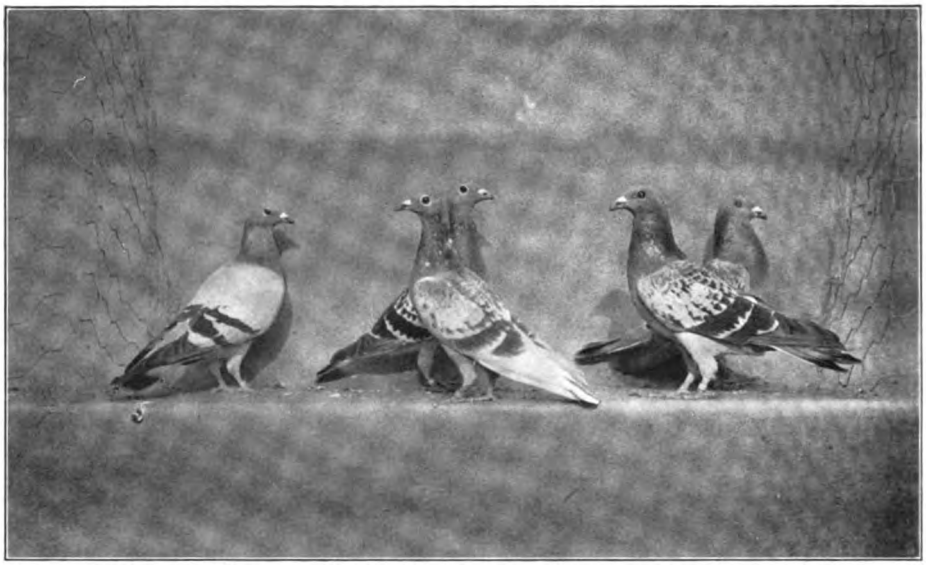
Cautiously they watched for the scattered birds, but in vain; they had taken refuge in an impenetrable swamp. An irregular circle of pines that towered high above the dwarf oaks attracted the attention of the hunters. There they found a level plot of ground carpeted with dry pine needles. Guns were set down against one of the pines, and, spreading napkins, the men sat themselves down and appeased their hunger, not forgetting to give Tenny his share.

Pipes were lighted and the fragrant gray smoke was curling upward when Tenny suddenly sprang to his feet and away sailed a grouse that had walked into the opening.

"I believe that fellow would have come and picked up these crumbs," said the Master, as he folded away the napkins in the empty game bag.

Then they worked their way out of the woods to the road and turned toward the station. Although no flannel had passed through the gun barrels they were as glossy as when removed from their cases. Yet the walk through the woods had been a health giving exercise, and the hunters went homeward with a healthy, ruddy glow on their faces.

Tenny, a few years later, went on a hunting trip to Virginia; but it is believed that some other dog roamed the home woods with the Master and his gun.



AMATEUR PHOTO BY H H. HESS

HOMERS.

Winner of 9th Prize in RECREATION's 6th Annual Photo Competition.

AMATEUR PHOTO BY H. H. HESS.

ANOTHER GROUP OF HOMERS.

Young Athlete—I have muscles to beat the band!

His Wife—Then you must have muscles to beat the rugs, also.—Chicago News.

QUIZ; A KANGAROO RAT.

H. A. THOMPSON.

"Quiz has been at it again!"

Jack was speaking. His tone expressed volumes. Quiz was a kangaroo rat which had made its home in the chinks of rock behind our cupboard. The "it" which he was "at again" was indiscriminate, wanton and often destructive theft of our belongings. This time the portion of our possessions which had attracted the long-fingered rodent was a box of quills of gold dust. The quills, containing the product of several weeks' labor on a placer claim in the vicinity, had been placed by Jack in a cigar box on a shelf in our cupboard.

Jack was engaged in mining; I in convalescing, assisted by the pure air and delightful weather of an Arizona autumn, from a severe attack of typhoid. The men of pills and bottles had shipped me to the foothills to camp with Jack and sundry tonics. Our tent was pitched where a low sandstone butte changed the course of a dry, sandy arroyo. A perpendicular wall of rock, at this angle, had been honeycombed by the flood-season torrents into a series of cavites of verying sizes. In these niches we had deposited our food supplies, utensils and lighter camp equipage, for we had discovered that the ants kept away from this rock. Why was a mystery.

But immunity from invasion by ants caused us to enter, unwittingly, the domain of an even more dangerous enemy. He stole our sugar, scattering what he could not eat. He tore open sacks of dried fruit, beans and flour, and distributed the *debris* about the recesses in the wall. Edibles encased in wood were insecure; that rat could gnaw through an ordinary box in a short time. On one of Jack's trips to the nearest settlement he obtained a number of cans with screw tops. These shut out our tormentor from such groceries as could be placed within metal walls, but those not so protected were still stolen. The little scamp turned his attention to toilet articles, carrying off toothbrushes and combs, chewing the bristles of hair brushes, etc. The absorbing question of camp became, "What will he do next?" From this constant presentation of a difficult problem we called him Quiz.

The climax was reached when Jack discovered a hole in the cigar box and certified the absence of several pennyweights of gold. It was then he made the remark which begins this history, and other remarks, recorded, I fear, more permanently. A crevice at the back of one of the niches was defended with the usual pile of cholla cactus balls. My partner poked a stick down this crack and got his hand full of barbed spines for his pains. Then he made more remarks.

"I don't see what in ——— that rascal wanted with gold!" he growled, pulling the stinging needles out of the injured hand. "He can't eat it. I wish he could; it would probably kill him. I wonder where he has taken those quills?"

"Probably where he took those spoons, your scarfpin, and my toothbrush," I replied. "The only way you can get at the hiding place of the miscreant is by blowing up the whole cliff, with the chances in favor of blowing up the gold, too."

THERE WAS A HOLE THROUGH OUR BEST CAMP KETTLE.

"Well," remarked Jack, decisively, "Quiz must die. I work all day, while you loaf and read, so you can stay here and shoot him if he shows his thieving head out of the rocks."

At first thought it would seem easy to carry out these instructions, since there were several 6-shooters and a shot gun in camp; but Quiz seldom showed himself, and a scatter gun would play havoc with

our camp utensils. Besides, I had lingering remnants of sportsmanship and scorned to lift a shot gun against so small an animal. I put a camp stool in a shaded place, laid my .44 caliber Colt within reach, and sat down to wait for the rat. Along in the afternoon I heard a slight scratching sound. Quiz was gnawing at the candle box. Picking up the revolver I shot. I can score a fair target average when in good health, but the fever had left my nerves in woeful condition, and the pistol sight wobbled as if I were trying to hit some spot on a rapidly moving wheel. When the flash finally came Quiz jumped to the floor unhurt. There was a hole, however, through the bottom of our best granite camp kettle, and I could almost take oath that the rat lifted a stubby thumb to his sharp nose and wagged his fingers before he darted to his home. What I said was not classical.

My comrade, who had heard the shot, was so interested in the fate of the rat that he ran 200 yards to inquire into the accuracy of my aim.

"You would better shoot for the camp kettle next time," he remarked, derisively, "and perhaps you would hit the rat."

"I should probably perforate the rest of the kitchen utensils," I replied, humbly.

"Well," he added, "I shall go to the village to-morrow for some giant powder, and I'll get a mouse trap, too. That may prove a better investment than ammunition."

I spent the next day keeping a sharp lookout for Quiz, who danced in and out of the cavities with tantalizing frequency and a rapidity which enabled him to defy me in the most brazen manner. Several times I fired at him with no other effect than to smash a bottle of headlight oil, which fed the bicycle lamp by which I read at night. That rat literally played hide-and-seek with me all day. He would sit on a stone out in the open, flirt his brush of a tail until I leveled the revolver, and then dart away with a grin on his face. It was maddening, especially to one who realized that his right hand had temporarily lost its cunning, and that he could not hit a covey of barns. It required an effort of will to avoid resorting to the shot gun. I believe, had the annoyance continued a week longer, I should have had a relapse, brought on by pure nervous irritation. That night Jack returned with his purchases.

"I brought No. 1 powder," he remarked, laying down a box of the dynamite sticks. "It contains 60 per cent. nitro-glycerine. That ledge is a tough conglomerate and needs considerable nitro to tear it. By the way, that No. 1 may explode from a severe blow, so we would better put it in a safe place. I brought a mouse trap, too," continued Jack, displaying the article.

He deposited the giant powder in one of the niches of the cupboard and laid the fuse and percussion caps near. The caps were large ones, loaded heavily with fulminate of mercury, and required gentle handling. The detonation of one in the hand would cause the loss of a finger or 2.

The next morning there were abundant evidences of the depredations of Quiz. He had gnawed into the box of candles, torn open a sack of *frijoles*, and ruined a vest which Jack had left in the cupboard; but the trap was untouched.

"Confound Quiz!" ejaculated my partner, gazing sadly at the riddled vest. "I'll put a bullet in him if the chance offers."

I doubted neither Jack's ability nor his will, but the rat seemed to divine that a crack shot was after him, and kept out of sight. The thefts, however, went on regularly.

On the evening of the second day, as we were seated at supper, Jack suddenly drew the big .45 caliber gun from its holster at his side and took careful aim into one of the niches. Following the direction of the weapon I saw Quiz perked up on his hind legs and biting away at something he held between his paws. I also saw at the same instant that the cavity he occupied was the one which sheltered that box of dynamite, and that the rat was immediately in front of the tin of percussion caps.

"Don't shoot! Stop! For the sake of Heav—!" I yelled, the last of the sentence being lost in a crashing report. Slivers of rock, fragments of camp stuff and pieces of sputtering fuse flew all about us and a cloud of smoke hid the niche. Jack's arm dropped nervelessly and his face, usually the healthy red of Arizona sunburn, blanched white. Slowly we looked each other over to make sure that no portion of the anatomy of either was missing; then my comrade drawled, "It is said Providence watches over intoxicated men and fools. I am sober, so you can draw your own conclusions."

Still trembling, we walked to the wall and examined the niche. There was nothing in it save the box of dynamite, which had been moved against one side of the cavity, and a few patches of furry skin plastered on the rock. The bullet had hit the box of caps and exploded them.

"If that giant powder had gone off," said Jack, slowly, "and I don't see why it didn't, unless the wood casing and the sawdust packing saved it, we would still be traveling in the direction in which Glory is supposed to lie."

BEARS THAT CLIMB.

T. B. CRAPO.

I have seen 2 bears climb trees after having been shot, which I have never heard another hunter tell of.

In the spring of '94 I was staying on Rattlesnake ranch. It was beautiful and warm. One day, when the other men were all gone and I had tired of loafing around, I decided to go out and kill a bear.

It was not far to the canyon, and I soon reached the head of Skidway hollow. Circling the hill on the Western side of the canyon, crossing several coolies and finally abandoning hope, I was well on my way down the canyon again, homeward bound, and going like a scared steamboat, when I came out suddenly within 40 yards of a bear, feeding on the hillside.

I stopped as if I'd been kicked, leveled my 40-82 on his ribs, and let go. He wheeled like a weathercock in a blow, and bawled like a dying calf, then shot up a tree. He climbed 10 feet, then hung. I fired again, and he fell.

I had killed a bear. Too impatient to stay to skin him, I only disemboweled him, and, leaving him on a snow bank, hurried on to tell the boys.

My victim was only a yearling black, all head and legs; but he was a bear, and would do to show, and I was as proud as a peacock. As I trudged back to the ranch I carried on all sorts of conversation with the boys, and fancied all sorts of airs of superiority, planned an indifferent manner, as though killing a bear was a mere ordinary occurrence.

Five hundred yards nearer home I came on another, on the opposite slope, coming toward me. He was perhaps 500 yards distant, and didn't see me. Hiding behind a jack pine, I waited for him, wondering if he could hear my heart thumps at that distance. He looked as big as a cow. However, it was only a black bear, and I wasn't afraid of any black bear! Not I! At 250 paces he turned to enter an aspen thicket. I hallooed to attract his attention, expecting him to stop at call long enough for me to shoot. I must have yelled loud enough to be heard in South Africa, for the yawp came back, intensified and magnified, repeated again and again, from every cliff and crag, from every rock and hill in the Rocky mountains, dying away in distant thunders.

The bear stopped at this surprising concert, and I improved the opportunity to put in a shot. Again the echoes thundered as if a dozen Gatlings were working. At the report, Ephraim jumped straight into the air, drawing his feet up against his body, and letting out a yell to beat a Comanche. He lit running, and I shot on and on, till my magazine was exhausted. I shot him in the foot and in the pants.

Hurrying forward, I intercepted him as he turned a rocky point, and put a shot into his shoulder. He sprang into a tree and out on a limb 10 feet high. There I put another bullet into the other shoulder and he came down—dead.

The boys would not believe my story when I got home, but next morning I proved it by getting them to help me skin. We tried some steaks, but I could not eat them.

Lady—What is the matter with my husband?

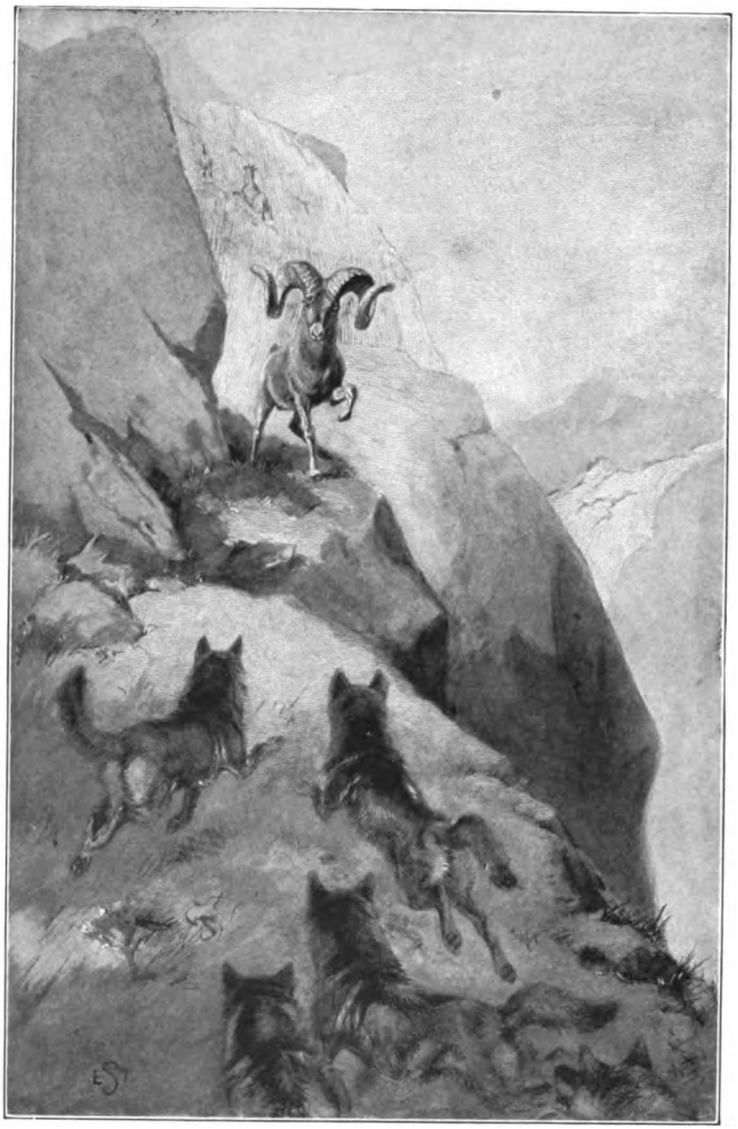
Doctor—I can not be sure yet. Have you noticed him doing anything unusual lately?

"Let me see. Well, last evening, instead of lighting his cigar the moment he left the table, he walked into the library and put on his smoking jacket, smoking cap and slippers before beginning to smoke."

"Hum! My, my!"

"And, later, when he wrote a letter, he wiped the pen on the penwiper."

"Horrors! It's paresis!"—New York Weekly.



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KRAG: THE KOOTENAR RAM.

Illustration from "Lives of the Hunted," by Ernest T. Seton. By courtesy of Charles Scribner's Sons.

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TITO: THE COYOTE THAT LEARNED HOW.

Illustration from "Lives of the Hunted," by Ernest T. Seton. By Courtesy of Charles Scribner's Sons.

(See page 237.)

A NATIONAL GAME PRESERVE IN ALASKA

W. T. HORNADAY.

To-day, Alaska contains the grandest hunting grounds in North America. They are inhabited by the giant moose, the largest antlered animal on the earth; the Kadiak brown bear, largest of all flesh-eating land animals; and the mountain caribou, largest and finest of its genus. The snow white mountain sheep is there, the mountain goat, black and yellow bears galore, and the rare, new glacier bear, as yet never seen in captivity, and in only one museum.

KADIAK BEAR IN THE NEW YORK ZOOLOGICAL PARK.

All these fine animals are being slaughtered, by sportsmen, hide hunters, head hunters, and Indians, who in true Indian fashion kill often 5 animals for every one they properly consume. In the United States statutes, there is not one line of game law either to protect the game of Alaska or restrict its slaughter in any manner.

Nature has been millions of years in developing the wonderful animal forms which inhabit our Arctic province, but which foolish and shortsighted man is now thoughtlessly exterminating. Unless quick and effective measures are taken by Congress, the next 10 years of slaughter will wipe out the work of ages, and leave Alaska only a barren, lifeless waste of rugged mountains and dreary tundras. Already the Western side of Alaska has been almost cleared of large mammalian life.

The favorite haunts of the grandest game of Alaska are not, and never can be, adapted to the wants of the husbandman. So far as known, they contain few precious metal deposits worthy of mention. Those rugged, rocky crags and peaks never will know the wire fence and the cowboy. Those mosquito-ridden, water-soaked tundras invite the wild goose and the sandhill crane, not the plow and the harrow.

Economically, there is no reason why nature's great natural gameland in southern Alaska should not be fixed and established for all time as a National game preserve, and made a heritage for generations yet unborn.

We of to-day have no right, either moral or legal, to destroy all the zoological re-

sources of nature, and hand over to our grandchildren a world destitute of wild life. The resources and the beauties of nature are an entailed heritage, which it would be criminal in us to destroy.

What is our duty in Alaska? The answer is simple: the logical sequence of existing facts. As if disposed by Nature to make easy the task of preservation, a narrow strip of coastwise territory in Southwestern Alaska, extending from the head of Bristol bay around to Yakutat bay, is to-day a natural park, stocked abundantly with the grandest wild animals now living in North America. This region is the home of the giant moose, caribou, Kadiak bear, white sheep, mountain goat, glacier bear, black bear, ribbon seal, and a host of smaller forms. It is inhabited by a small number of Indians and Aleuts, and a few white traders and hunters. Congress should pass a law creating of this territory a national game preserve and providing for its effective protection and regulation, on about the same general lines as the Yellowstone Park. If it is found advisable to permit a limited amount of hunting under government license, let the law so provide. The interests of the natives can be conserved, but no Indian that ever trod moccasin or bootleather ever again should be permitted to slaughter big game at will. Their shameful work in Western Alaska should never be repeated in the South. The sale of breech loading firearms to natives in that territory should be stopped immediately before it is too late.

The interior boundary of the game preserve which I believe should be created, should, for reasons too numerous to state here, be as follows:

Begin at Nushagak, extend along the Nushagak river to its confluence with the Malchatna; thence along that stream to where it crosses the 155th meridian of West longitude; thence in a direct line to latitude 62 degrees, and longitude 152 degrees, which point is North of Tyonek, and distant therefrom 80 miles; thence Eastward along the 62d parallel of latitude, to where that parallel crosses the Copper river; thence to the summit of Mt. St. Elias, and the head of the Northeasterly arm of Yakutat bay. This reservation includes the whole of the Alaska and Kenai peninsulas, Kadiak island and Afognak island, but no other islands.

There are many reasons why the boundary and the areas included in the preserve should be as above, and neither more nor less. It is not claimed, however, that the remainder of Alaska should be left without game laws. Far from it! But that is another matter. This area is clear cut, easily protected, and as yet well stocked with wild life. It contains all large species found in Alaska except the polar bear. In the preservation of a grand series of North American types, this is the line of least resistance, and the shortest and surest road to a result. It can be made to serve as a great reservoir for animal life, like the Yellowstone Park, forever overflowing and stocking the regions around it.

A bill providing for a national game preserve in Alaska, has been introduced in Congress. This bill provides for reserving the Kenai peninsula, and such other territory as the President may reserve by proclamation. If it receives sufficient indorsement from game preservers, it can be passed at this session. All persons who are willing to aid in securing its passage can do so by writing to their congressional representative in behalf of the "Alaska Game Preserve bill," and they are requested also to communicate with me at the New York Zoological Park, stating their views on this subject.

There is a man at the Pan who advertises artificial legs by walking about on a pair exposed to view from the knee down. The other day a curious and sympathetic old lady investigated this phenomenon.

"Did you cut off your legs so as to exhibit them things?" she asked.

The poor fellow assured her that his job wasn't worth so much to him as his own legs would be. Then, after further critical examination, she said,

"Wa'al, I s'pose the feet are natural. They look so."—Buffalo Commercial.

MARCH.

A. L. VERMILYA.

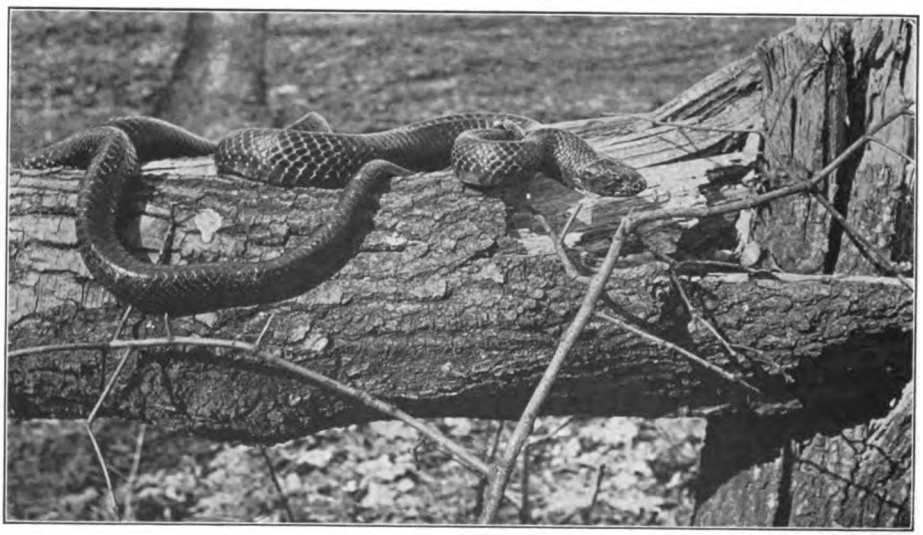
Come on, wild March, you windy knight, and blow
The storms and chill of winter far away;
Sweep o'er the land, the grim Ice King de-throne,
And clear the path for April and for May.

Folks rail at you, old chap, and call you names;
They say you're full of bluster and of bluff;
But well I like your energetic ways,
And so I say, "All hail! you're just the stuff!"

Blow far away the gloom of winter days;
Drive on the frowning, leaden-colored skies;
Bring back the birds from sunny Southern climes—
The birds for which we wait with long-ing eyes.

And when fair April and her sister, May,
Shall carpet smiling earth with myriad flowers;
When rippling brooklets wander through the fields,
Where joyous anglers spend the spring-time hours;

Then, March, good friend, we'll ofttimes think of you,
And say, when resting 'neath the whis-p'ring trees,
"He went before, with gusty winds and strong;
Behind him came the balmy summer breeze."



AMATEUR PHOTO BY WM H. FISHER.

A NATURAL POSE.

Winner of 14th Prize in RECREATION'S 6th Annual Photo Competition.

THE OLYMPICS AND THEIR ELK.

F. A. JOHNSON.

Late in the summer of 1899, we sought a new and unexplored field for an outing. With light outfits, saddle and pack horses, we had roamed over the White and Bear river regions of Colorado, over the Big Horns from end to end, through the Bear River, Salt River, Gros Ventre, Snake River and Teton range, and into the Wind River and Shoshone mountains. We had done some exploration work in the Rockies of Montana, near the Northern boundary line, where the wildest rocky scenes of all were found; but with the exception of the latter region, all were well known to many others, and had been fully described. Alaska was considered, but the Olympics, of which comparatively few people have any extensive knowledge, invited study. Examination of the most recent maps showed that surveys had been made of Eastern and Northern portions of that region, and of a reservation on the Pacific coast; but the great heart of the country had never been traversed even by the surveyors. Rivers were outlined radiating in every direction from a common center, apparently not more than 10 miles square; coast ranges were shown, and we knew from general experience that mountain ridges separated the beds of streams. Every map revealed a range running nearly East and West about 60 miles, and North of that range, in the heart of the wilderness, was seated old Mt. Olympus, in solitary grandeur. We searched in vain for information as to the central region. Articles in RECREATION gave graphic pictures of the Eastern slope, dropping down into Hood's canal, and the region about Crescent lake, in the Northwest; and it should be here noted that the files of RECREATION contain an immense store of modern geographical knowledge not to be found elsewhere. Letters from sportsmen of the Washington coast informed us that the great white dome of Olympus had never felt the foot of man, and was not accessible. This fact brought a decision.

The party consisted of 4; 3 lawyers and a physician who is a specialist in surgery; all men of some experience in such trips. A superb train of the Great Northern carried us to Seattle, where we took a steamer, landed at Port Angeles, employed Mr. C. C. Bowman and a cook, outfitted with substantial provisions, and horses for packing and riding, as far as they could be used, and ascended the valley of the Elwha river, determined to reach the heart of the region on horseback or sole leather. Mr. Bowman had ascended the valley about 30 miles, but beyond that it was unexplored. On the way up we concluded that horses could not be taken through, and employed Martin Hume, a hunter having a cabin in the valley, which we found ornamented with the skins of black bear and with elk antlers. Passing through Press valley, so named by a party of newspaper men from Seattle who had penetrated to that point from the East side, and on through forests of great cedars and firs, 4 to 10 feet in diameter; through clumps of familiar alders, here grown into trees 60 feet high and a foot in diameter; climbing up and down over a continuous succession of great mountain spurs; carefully selecting old elk trails wherever they led in the right direction; stopping to rescue horses which had fallen down the steep slopes, and on 3 occasions to aid the doctor in applying modern antiseptic surgery to the poor brutes, where gashed and torn by the rocks, we finally, on the fifth day, reached a point where 3 forks form the main river. There we made a main camp, and sent one of the men back several miles with the horses to a place where they could find feed.

Leaving 3 of the party in camp, Hume undertook to explore the North fork, and Bowman and I, the other 2. It was arranged that all should return the next day and report results. We started early in the morning, outfitted with rifle, hatchet, camera, knives, and a small pack of provisions, appreciating so well the work ahead that even a blanket was discarded. One branch was soon found to be short, and Bowman and I ascended the middle one. After a half day of as hard climbing as the country affords, we reached the top of the divide, between towering mountains covered with snow and ice, and found this branch had its source in Lake Mary.

About 100 feet farther South, and separated from Lake Mary by a solid wall of volcanic rock, is Lake Margaret, the waters of which flow Southward into the Quinault river. Neither lake covers more than 2 acres, but they are little gems, and the valley of the latter is a veritable paradise for a sportsman and lover of mountain scenery. It is not more than 3 miles long and is hemmed in by lofty mountains on either side, which are dotted with groves of firs and grassy parks, kept green by the melting snow above, as well as by the almost continuous rain of that region.

The lower valley is divided by narrow strips of timber into 4 parks, carpeted with a fine growth of grass and a profusion of flowers, and dedicated forever to the elk and bear. No horses will ever be able to graze there, unless hauled up by a derrick and several hundred feet of rope; nor can a real tenderfoot ever see its beauties, as muscle, wind, enthusiasm and dogged perseverance are required to reach its portal. There we found fresh tracks of bear and elk in abundance, and in making a trip of less than 2 miles down the valley we located 3 bands of elk in the parks up near the perpetual snow. This valley seemed to be their summer home, and is apparently a safe retreat.

Returning to the divide before dark, we prepared for passing a wet night without a blanket, by building a good fire under a short but dense-leaved fir. Our clothes dried while we prepared our supper, which consisted of coffee made in tin cups, bacon broiled on a forked stick, and warmed bread. By replenishing the fire occasionally we were comfortable and slept well. At daybreak, Bowman started down to the main camp to conduct the rest of the party, in light marching order, to "Camp Perfection," with instructions to inform them that there would be fresh meat ready for broiling on their arrival. He could not get back with them until late in the evening, and, though left alone, I had before me the most glorious of my many happy days in the mountains.

For 6 days we had been clambering slowly up a leafy cave, between giant firs and cedar tree trunks, and through masses of dripping ferns as high as the horses' backs. There were few places where the view could range a mile, or the baffled sun could send its warming rays to the ground; but the dark brown water ouzel, almost the only living thing, dived into the rushing river, made his way against the current in search of food, and then from a rock tetered his welcome to the stranger, and sang the sweetest songs of all the feathered kind.

Practically certain of securing needed camp supplies, and confident that this valley, opening out only to the sky, was virgin hunting ground, I was in no haste to start out in the gray dawn to secure game. Always seeking to camp on the highest parts of the mountains where water and wood could be secured, but generally compelled to go down into a valley, I was in a state of perfect contentment, and ascended a round-top knoll on the divide next to the outlet of Lake Mary. The scene down the fork toward the Southeast was cold and dreary. A dense fog, or cloud, filled the valley below, and its upper surface rolled and heaved in giant waves and billows like the great un-Pacific ocean behind me. As the white light of the East changed into pink and then into crimson, the highest peaks flashed out like torches. Then the snow fields, the domes of dark volcanic rock, the clumps of firs, grassy parks, sloping valleys, tiny streams, countless cascades, and finally the deep cañons, each with a silver thread of wearing water, rose out of the cold gray plate of nature, a brilliant positive, perfect in focus, detail and contrast, and a masterpiece of color photography, fixed in the mind forever.

It had not before been my good fortune to witness the birth of a new day and a new world from a mountain top, but since then the heads of our horses have frequently been turned upward as the evening shades fell, and our campfires have blazed at the timber line.

There I lingered, and with a field glass studied the details of the magnificent scene. I wondered when some inspired scientist would shape a lens to show the grand sweeps of mountain sides and valleys, the towering peaks, and the deep cut cañons as they appear to the eye, so the weak might revel in the scenes now visible only to the strong. Then, disappointed in advance by what I knew the results must be, I took the camera, and with an apology to the ruler of the crags, stealthily exposed a number of plates in a most humble spirit.

A glance across the valley Northward reminded me of my undertaking to provide meat for 7 hungry men; also of Dr. Jekyll and Mr. Hyde. Unquestionably there is something of the savage in every sportsman. When the 30-40 Winchester was substituted for the camera, and the stroll down the valley began, there was no haste, as the whole region was mine alone; but interest became lively as to whether the meat would be bear or elk. It was certain to be one or the other. When about a mile down the valley I saw 3 straggling elk feeding up above the timber line, but walking down. When they were out of sight in timber I took a position by a rock in an open park from which I could see them when they came out. A half hour of quiet waiting and watching resulted in hearing them splash the water in an alder bounded stream, but in a moment a fickle air current gave scent to the band, and they rushed up the stream, protected by the bushes. An open space, however, must be crossed. A string of cows ran out ahead, which seemed strange to me, and the 2 bulls brought up the rear. I took a quick shot at one while he was in the air, and he went out of sight. The climb up this open glade furnished a surprise as to elevation, though not as to the

range. When within about 100 yards I saw the elk's antlers moving. Climbing a few yards farther up, I saw him get on his feet, and gave him a shot in the neck. He fell as if struck by lightning. Throwing another cartridge into the barrel, I approached within 40 yards. Again he struggled to his feet, wheeled and charged down toward me, but with a lurching and unsteady gait. I watched with intense interest, my finger on the trigger ready for a third shot. As I was about to put a bullet into his head, he stumbled, pitched down and struck on his head and antlers, landing on his back about 5 yards to my left. There he continued pitching and rolling for fully 75 yards, until he struck against some large rocks, where he finally died. As I had killed a number of Rocky mountain elk, each with a single shot from

A MONSTER WITH 7-POINT ANTLERS.

my 30-40 Winchester, I felt a lively interest in knowing the point where the first soft point bullet entered, but he was too heavy for me to handle alone. All I could do was to dress him partially and obtain some choice cuts for the promised evening meal. The rest of the party reached the camp in due time. The next morning we ascertained that the first shot struck him on the right side of his neck, well up, about 6 inches back from the antlers, passed diagonally upward and into the thick bone of the skull, under the left antler, which was found to be pulverized. The upper edge of the vertebræ was also shattered where the bullet entered. With such a shot it is easy to understand how the animal lost mental control, but the vitality exhibited seems worthy of mention.

The second day another member of the party secured a monster with 7 point antlers, 56 inches spread, weight 32 pounds, which we saved with the cape, and which was mounted by Mr. C. E. Akeley, the art taxidermist of the Field Columbian museum, who has taken and is mounting, in the highest style of the art, a complete family of Olympian elk.

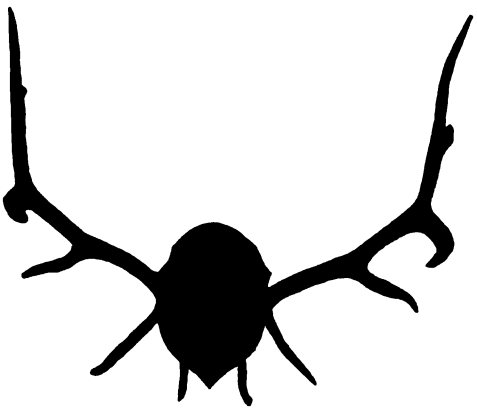
From the top of the mountain at the head of the valley we obtained a long range view, and ascertained that there is no range running East and West, as shown on the maps. The valley of the North fork, which Hume had partially explored the day before, and a glacier 3 or 4 miles long, which sweeps down from the dome of Mt. Olympus, afford the only means by which the mountain can be ascended. A mile or 2 below the foot of the glacier is a fine park of about 10 acres, where horses can feed for weeks. Returning to the forks, 3 of us, with one pack horse, ascended the North fork. After turning out the horse we climbed the long, steep body of ice and snow, to the top of the grand old mountain; but were greatly disappointed by the rising of a dense fog as we went up, which turned into rain and snow. We were thus prevented from taking, from that central point, photographs from which an accurate map might be sketched. In this only passage way to Mt. Olympus we found perpetual snow and ice at an elevation of less than 3,000 feet, and the upper timber line at about 4,700 feet.

The elk are of a distinct variety, now known as *roosevelti*. Among the features which distinguish them from the *canadensis* are their large size, heavier antlers, dark head and neck, legs and feet, in fall and winter pelage, large rump and great depth of shoulders, giving them the appearance of having short legs. The beams of the antlers near the head are a third larger than those of the Rocky mountain variety, and I believe that the bulls of the same age are one-third heavier. Judging from the known size and weight of my saddle horse, I am satisfied that the larger bull taken on this trip would weigh over 1,000 pounds.

In naming this lord of the mountains, Prof. C. Hart Merriam wrote, "I deem it a privilege to name this splendid animal Roosevelt's wapiti. It is fitting that the noblest deer of America should perpetuate the name of one who, in the midst of a busy public career, has found time to study our large mammals in their native haunts, and has written the best accounts we ever had of their habits and chase."

MAMMOTH ELK HORNS.

The New York Times of August 10th says, in one of its editorial columns, that the mammoth elk horns in my possession are not elk horns, but moose horns. How is the writer to know that, without having seen them? It is also stated that the European elk is an elk, which can not be denied; but when the assertion is made that the American elk is a moose, I am not prepared to accept the statement as truth, for the shapes of the prongs differ.



WHO CAN BEAT THEM?

I enclose a photo of these antlers. The horns measure 9 feet and 3 inches from tip of beam to tip of beam across the skull, and they have a spread of 53¼ inches. The beam lengths are 55 and 56½ inches, and, of the 10 prongs, the longest are 16 and 17 inches. Had these elk horns been differently mounted, with the animal's head between them, their spread would have been 24 inches greater. These elk horns were picked up many years ago, on the plains, by H. W. Sherrill, of Denver, Colorado, and they have been in my possession about 30 years. They have never been tampered with, as in the case of the Montana elk horns described in a previous issue of RECREATION. If there is a larger pair of elk horns in America, I should like to buy them, although I am not a collector.

Probably there is but one larger pair in existence. Those are in possession of Emperor William of Germany. They were presented to him by Hans Leiden, the German consul at The Netherlands, and the Director of the Zoological Garden at Cologne. Those horns measure 12 feet from tip of beam to tip of beam across the skull, and have a spread of 62 inches. They have a beam length of 67 and 67½ inches, respectively. The longest prongs are 22 to 22½ inches in length, and there are 12 of them.

W. C. Darling, Henderson Harbor, N. Y.

FISHING AT "CAYUGY BRIDGE."

G. A. WARBURTON.

Some may go for leaping ounaniche,
  In the turbulent Saint John;
Some may seek the mighty salmon,
  In the streams of Oregon;
Some may lure the speckled trout,
  From brooks or ponds in Maine;
But if I may choose my fishing ground
  When I go out again,
I ask no better place to go, no higher privilege,
  Than fishing with the younger boys
At old "Cayugy Bridge."

The fish they were not plenty,
  And the tackle wasn't fine;
You could buy it for a quarter,
  Hook and sinker, pole and line;
But I tell you it was pleasure,
  Just to sit and wait and wait
For the bass that never touched it,
  While the shiners stole your bait!

We never called it "angling,"
  In those days so long ago;
It was only simple "fishin',"
  And we went for fun, not show.
Don't forget, my son, your father
  Now doth solemnly allege,
That his happiest days of fishing
  Were at old "Cayugy Bridge."

THE GOLDFIELD HERD.

I send you under separate cover the photo requested. The gentlemen shown in the picture actually caught the fish displayed, and what is more, that is only a sample of the many beautiful catches made at Spirit lake every year.

ONE DAY'S CATCH AT SPIRIT LAKE, IOWA. 210 CROPPIES 250 POUNDS.
J. A. Conger, Harry Agard, John Cameron, S. G. Keith, Ted. Hunton.

It may be of interest to readers of RECREATION to know that the spirit of true sportsmanship is on the increase in Iowa. Our legitimate sportsmen are organizing for the prosecution of the poachers, and with the assistance of our new State fish and game warden, are making things lively for the violators of the law. Only this week Mr. Lincoln had shipped to his home in this city a 900-foot seine, captured at Fort Madison and confiscated under a law. A number of successful prosecutions have been made for violations of the chicken law, and now we are out to protect the quails.

The only way to stop poaching is for legitimate sportsmen to organize in the various communities and offer rewards for the apprehension of the scoundrels who violate the law. We have an informal organization here, and so far as we can learn the sportsmen of Cedar Rapids have observed the law closely. Some pot hunters were out once or twice early in the season, but discovered that the boys meant business, and put up their guns until September 1st.

W. E. HOLMES,
City Editor the Gazette, Cedar Rapids, Ia.

ANSWER.

You say "the gentlemen" shown in the picture actually caught the fish displayed. I regret to say that I, in common with thousands of other men, can not agree with you in the term you apply to these chaps.

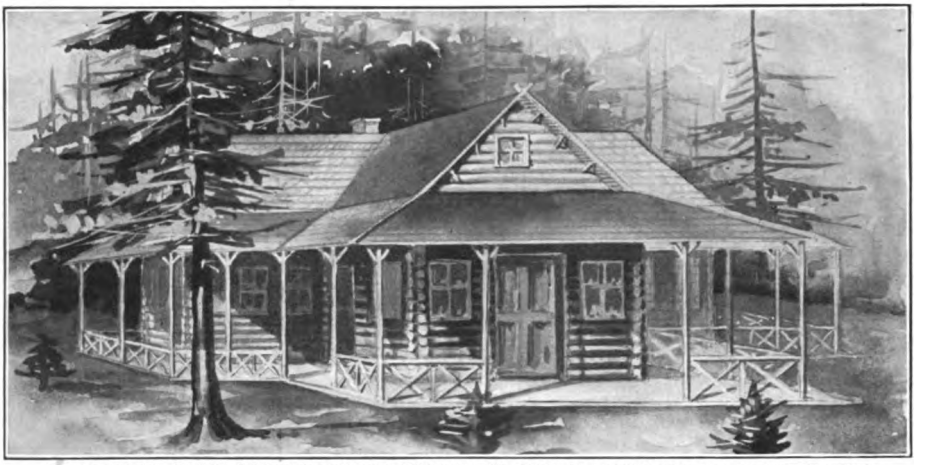
The legend written on the picture says, "210 croppies, 250 pounds."

There are 4 men shown in what purports to be the "Goldfield Gang," and who are supposed to have done the fishing. The man in the center, who seems to bear the greater portions of the burden, is supposed to be the guide, or oarsman, and is not supposed to have done any of the fishing. Leaving him out of the count, it

seems that the 4 men averaged nearly 50 fish each, and that the weight of each man's catch would average over 60 pounds. Do you call this the work of gentlemen?

You say further, "The spirit of true sportsmanship is on the increase in Iowa." I am glad to know of this, but the Goldfield Gang are not entitled to figure in this advancement. According to their own showing, as made in this picture and the record printed therewith, these chaps belong rather to the class of poachers whom the legitimate sportsmen you refer to are organized to prosecute. The work of these so-called "gentlemen" is much more reprehensible than that of the poor market fisherman from whom the 900-foot seine you speak of was taken, at Fort Madison. I have a great deal more respect for the poor man who takes fish in a net and sells them for food, than I have for Ted Huston, Editor S. G. Keith, Harry Agard, and A. J. Conger, who take 60 pounds of fish each in one day, on a hook and line; who then line themselves up in front of a camera and have themselves photographed with their swag with that disgusting "we caught 'em" look on their faces. The market fisherman is a gentleman as compared with the members of the Goldfield Gang.

You say the only way to stop poaching is for legitimate sportsmen to organize and offer rewards for the apprehension of the scoundrels who violate the law. There is probably no legal limit established by the laws of your State as to the number of fish or the number of pounds of fish a man may take in a day with hook and line. And so it is not likely that the Goldfield Gang have laid themselves liable to prosecution by taking a boatload of fish in a day; but they have merited the contempt of all true sportsmen, by making hogs of themselves in the first place, and then by having themselves photographed with the result of their slaughter, in order to stimulate others to "break the record."—EDITOR.



PROPOSED CLUB HOUSE TO BE BUILT BY THE MASHIPACONG CLUB ON ITS GROUNDS IN SUSSEX COUNTY, NEW JERSEY.

"A man is the most sensible of all animals, is he not?"

"Certainly."

"Then I wonder why he doesn't wear a loose, comfortable collar like a dog's."—Washington star.

CONGRESS HAS FULL POWER.

The following correspondence brings good news to all friends of America's wild animals:

HOUSE OF REPRESENTATIVES,
Washington, Dec. 5, 1901.

Hon. P. C. KNOX,
Attorney-General U. S.

My dear Sir: In furtherance of my verbal inquiry regarding your views on the subject of forestry legislation I wish to obtain the benefit of your judgment on the Constitutional powers of Congress to control the various forest reserves where they are situated in the States.

As to those reserves situated in the Territories, it seems to me quite clear that Congress can accept the Territorial laws or can modify or change them at pleasure, and that those reserves are clearly within the jurisdiction of Congress.

As to the enactment of federal laws to punish the setting out of fires or trespasses in cutting or injuring the timber, I should be pleased to have your views as to what constitutional limitations, within the limits of the States, would interfere. In view of the permanent withdrawal of these forest lands for a general national purpose, would the powers of regulation and control be greater than those which may be exercised in the preservation and management of ordinary public lands open to entry or settlement, where the same are covered with timber?

These questions involve the general power of enacting statutes punishing the persons who may injure the forests, as well as making and enforcing regulations for their case.

In these forests the wild game have opportunities to breed and find shelter.

An enlightened public sentiment, though unfortunately too tardy in its development, has finally led to the enactment of efficient and adequate game protection in nearly all the States and Territories, which laws, if suitably enforced, would in most instances give adequate protection. Unfortunately, in many localities these laws are either wholly or in part disregarded. The President, in his message, has asked for the enactment of laws creating game preserves in these forest reserves. This recommendation involves the question as to the extent of Congressional power; also the choice of methods.

If Congress has no power or control over the subject within the limits of a State it has unquestioned authority, in my judgment, to prevent interstate commerce in the dead bodies or living creatures themselves. This control Congress has already asserted in the federal law prohibiting transportation from one State to another of such game when killed in violation of State laws.

In the disposition of this question in the forest reserves the custodians of the forests might be directed to make complaints and enforce proceedings under the local statutes, thus supplementing the efforts of the State authorities. On the other hand, special federal statutes might be framed, if constitutional power exists, to deal directly with the question. Indirectly, protection might be furnished by preventing trespass of all kinds during certain seasons, thus giving incidental protection to the wild inhabitants of these national forests during certain portions of the year.

In this border land of State and National authority I regard it as of the utmost importance that the legislative should keep in view the rights and powers of the States, and that care should be exercised to avoid conflict of jurisdiction where so much depends on having the laws backed up by a friendly local public sentiment.

I should be gratified to have the benefit of your judgment as to how far legislation on these various subjects would be within the constitutional domain of the Congress.

Respectfully,
John F. Lacey.

DEPARTMENT OF JUSTICE,
Washington, D. C., Jan. 3, 1902.

Hon. John F. Lacey,
House of Representatives.

Sir: Complying with the request therefor, contained in your note of December 5, 1901, I here transmit to you some of my views on the questions there suggested. These questions are as to the power of Congress to enact laws for the protection and control of, or relating to, our national forest reserves, when within the limits of a State; and specifically to make such reserves. to some extent, refuges for the preservation of the remnant of the game in those localities. They necessarily involve, also, substantially the same questions as applicable to the general public domain; for, so far as concerns the question of federal legislative power, no difference in principle is perceived.

I agree with you that, as to those reserves situated within a territory of the United States, this federal legislative power is ample; and the questions are those arising when such reserves are within the limits of a State; but in order to determine those, it may be well to

refer briefly to the nature and source of this federal power over the Territories.

As to the source of this power, there has been a diversity of opinion, and the power is claimed to have arisen from that provision of the Constitution which gives Congress the "power to dispose of, and make all needful rules and regulations respecting the territory and other property belonging to the United States"; and other sources of this power have been suggested. But, whatever its origin, the existence of this power, as the Supreme Court has several times said, is undoubted.

While in the Dred Scott case (19 How., 393) it was held that this constitutional provision applied only to such territory as the United States then had, and did not apply to that subsequently acquired by treaty or conquest, this has not been acquiesced in in later cases, several of which point to this provision as, at least, one of the sources of the power and control which Congress exercises over the various Territories. I think it may be taken as now settled, that this provision confers on Congress the power stated, over all the Territories.

Congress, then, having sovereignty and ample legislative control of the Territories, while they are such, and of the public lands therein, one important question is: How far this sovereignty and right of control is surrendered to the State by its admission into the Union? Here we may look again to the Constitution, then to the Acts admitting such States, and to their constitutions when admitted.

First, as to the federal constitution. Assuming, as I think we may, that the provision above referred to applies to all "territory and other property belonging to the United States," whether then already, or subsequently acquired, what was the intended limit of the duration of the power thus conferred? Was it intended to continue only until the new State was admitted, and to then cease and leave Congress and the Government without any power to dispose of or to make needful rules and regulations respecting the public lands or other property belonging to the United States, or was it intended to continue as long as its subject matter and its necessity continued? If the former, we must look to some other source for the power of Congress to dispose of and regulate the management of the public domain within the limits of a State; if the latter, then this provision is ample.

I do not consider here the case of military forts, posts, dockyards, etc., for which special provision is made in the Constitution, nor sites for postoffices, court houses, etc., the question of jurisdiction over which is generally settled by convention.

When the Constitution was adopted we had but one Territory, though it is fair to suppose that others were looked on as possible. The one we had was acquired under conditions which required its admission into the Union in not less than 3, nor more than 5, States with equal sovereignty with that of the original States; and the Constitution provided for the admission of new States. Thus, with the subject of new States directly in mind, did the framers intend to give Congress power to dispose of and manage the public lands, while in a Territory, and to leave it without the power to do either after a State was admitted? For it could not have escaped them that to confer this power while the Territory remained such, was, by the strongest implication, to deny it afterward. Did they intend this?

In the first place—and this is quite sufficient for the construction—the provision itself imposes no limitation, either of time or of Territorial or State condition; nor does the nature of the power conferred imply any such limitation. On the contrary, the power is as broad and general as language could make it, with no limitation whatever, either expressed or implied. The reason and necessity for the power are tenfold stronger after the admission of the State than during the existence of the Territory; and there is no rule of law or of construction which will permit us to impose a limitation which neither the instrument itself nor the nature of the power imposes or implies. The general rule is that when a power is conferred without limitation, express or implied, it continues as long as the necessity for its exercise; and the Supreme Court has, more than once, said (as in Gibson v. Choteau, 13 Wall., 92, on page 99) "That power is subject to no limitations."

The difficulty and misconstruction here arise chiefly from the use, in this clause, of the word "Territory." If, instead, the expression had been that Congress should have power to dispose of and make all needful rules and regulations respecting the land and other property, there could have been no question but that this power of disposition and control continued after Statehood as before. This is exactly what the provision does mean. It does not refer to organized Territories, as to which the term "dispose of" and make "rules and regulations," and "other property" are not appropriate; but it refers to land and other property. This is expressly held in United States v. Grotiot (13 Pet., 526), where it is said (p. 536): "The term 'Territory,' as here used, is merely descriptive of the kind of property, and is equivalent to the word lands. Congress has the same power over it as over any other property belong-

ing to the United States, and this power is vested in Congress without limitation."

This, of itself, would seem to make the meaning fairly certain. Consider the situation. After a long struggle, which had delayed the adoption of the Constitution, the people had finally settled the ownership and sovereignty of the lands outside of the States in the General Government. It was claimed that as this territory had been wrested from Great Britain by the blood and treasure of the people of all the States, it should be held for their common benefit, and not for any State. It was finally so settled and agreed, and the whole territory was ceded to the United States for the common benefit of all. At that time, next to State jealousy of federal power—if second to even that—there were mutual State jealousies of the power of each other, and this was one of the causes of the dispute over the public territory. Yet it was certain and well known that, on the admission of the expected new States, with their sovereignty within their borders, all of the sovereignty and control of this territory within their borders, which was not in the United States, would be in those States respectively; and that that sovereignty and control which they had so long struggled to place in the United States would be passed over to those 3 to 5 States, as they were admitted. This was certain to be the case, for, if Congress did not have this sovereignty and control after a State was admitted, then the State did have it, and no other State could interfere. Those States might then, by unfriendly legislation or by no legislation, or both, so hamper those lands, their sale, occupancy and control, as to render them of little value, except to those States and their people. It is simply incredible that this was intended. If it was not, then it was intended that this vital power of disposal and control should continue at a time when, of all others, it was most needed. While the Territory remained such the sovereignty of the United States was complete without any other grant than that contained in the cession, and this special grant of power was not at all necessary. Its chief, if not its only, use and purpose was that, when and after these lands passed into and under the sovereignty of a State, they should do so subject to the paramount sovereignty of the United States, so far as was needful.

In framing this dual government, this *imperium in imperio,* in which each State was to be, in many respects, sovereign in the Nation, and the Nation, in many respects, sovereign in each State, the separation of these sovereignties and their lines of demarcation must have received the most careful attention of those statesmen as one of the most important and difficult problems which confronted them. As the control and disposal of this territory was one of the most important and burning questions of the time, and had long been such—delaying and, for a time, endangering the adoption of the constitution—it would seem impossible that when dealing directly with this question provision was made for this control while in a Territorial state, and when it was little needed, and purposely omitted at a period when, of all others, it was most needed. We shall come nearer to the real meaning of this provision by reading it as it is so plainly written, without any limitation, either of time or Territorial or State condition.

If authority for this construction be needed, it is not lacking, and in another connection I shall refer to some cases which come first to hand.

Assuming then, as I think we must, that this constitutional provision confers on Congress the power of disposition and control of the public lands after the admission into the Union of the States containing them, how much, if any, of this power is surrendered to the States by the Acts admitting them into the Union as sovereign States? Here the general rule is certain, although questions may arise as to its application to particular cases. As far as its exercise is needful to the disposition and full control and management of these lands, Congress has always been and is capable of diverting, alienating or surrendering any part of it. It is uniformly held that, while the title of the United States to the public lands is absolute, as against every other title, yet it is held in trust for the ultimate benefit of all the people, in such manner as may be prescribed by law, and this is peculiarly the case as to the only Territory we had at that time. Congress then, being a trustee of the title, cannot divert, alienate, or surrender any power necessary or proper for the disposal, protection, preservation, control, or management of its lands, nor in any way discharge itself from the duty of executing the trust confided to it.

But, while this power to make all needful rules and regulations is also the power to determine what are needful; and while, therefore, this power so conferred is in terms absolute and unlimited; yet, notwithstanding some general statements of the Supreme Court, it may be well claimed that, after the admission of a State, there is, necessarily, a limit arising from other portions of the Constitution and the general powers of the State. For example, may Congress continue to legislate for this public land—some of it, perhaps, in small, isolated parcels—upon all subjects of municipal legislation, civil and criminal, and irrespective of the laws of the State on the

same subjects, as it does, for example, in the District of Columbia? Or, on the other hand, is the power of Congress within a State limited to such acts, legislative or otherwise, as are required for the disposal, protection and control of such lands? Or is there, between these, a limit to federal power, legislative or executive? It is not necessary to discuss here the first of these questions, for no such general legislation is contemplated; and the other 2, also how far federal control has been surrendered by Acts admitting States into the Union, may be examined in the light of another consideration, namely, the rights incident to ownership.

Subject to the eminent domain of the State, the collection of taxes, the service of process and other kindred superior rights, the ownership of land carries with it, as incident to and a part of such ownership, the right of exclusive possession and control, which includes the right to forbid and prevent intrusion thereon for any purpose, and to prevent and remove trespassers. The owner may forcibly prevent such intrusions if he can, or he may apply to the courts for relief, or to recover damages; but a private individual may not himself enact laws for the protection of his property or to punish trespassers on his lands. Is the United States in the same situation as to its lands within a State? Is it without power to itself enact laws for the disposal or management of its public lands within a State, or for their protection from fires, or the preservation of its timber or minerals thereon? This is undoubtedly the case, if the United States, as to such lands, has no other rights than those of an ordinary proprietor.

It must be admitted that much that is said by the Court in Fort Leavenworth R.R. Co. v. Lowe (114 U. S., 525) is directly to the effect that as to lands within a State, unless jurisdiction is reserved in admitting a State, or the land is acquired by the United States with the consent of the State for military purposes, etc., as provided in the Constitution, the United States has no other rights than those of an ordinary proprietor, and that, like other lands, they are subject to the sole jurisdiction and sovereignty of the State. It is in view of this that I discuss this question more elaborately than I otherwise should; but, if what is there said is to be considered as a denial of all legislative power of Congress over such lands, not only is it opposed to the uniform practice of the Government from the beginning, with the frequent approval of that court, and to many contrary declarations of that court, but the contrary is directly held in later cases.

What is said in that case must be read with reference to, and in the light of, the case then before the court. The question in that case was that of the exclusive jurisdiction, or not, of the United States over that part of the reservation not used for military purposes. On the admission of Kansas no reservation of federal jurisdiction was made, but later the State ceded that jurisdiction to the United States with this saving clause, namely: the right to serve civil and criminal State processes therein, and "Saving further to said State the right to tax railroad, bridge and other corporations, their franchises and property on said reservation." The State levied a tax on a railroad on this reservation, and the question of its power to do so depended on whether the reservation was in the exclusive jurisdiction of the United States. The court held that, inasmuch as it was not purchased with the consent of the State "for the erection of forts, magazines, arsenals, dock yards, and other needful buildings," under Clause 17, Section 8, Article I., of the Constitution, the United States had no such exclusive jurisdiction; that, under this saving clause, the State had power to tax the railroad property; and that the only way by which the United States could acquire this exclusive jurisdiction within a State was that provided by the Constitution, namely: by purchase with the consent of the State. The question of concurrent jurisdiction, or of federal jurisdiction for some purposes, was not discussed, nor even mentioned, for it was not involved; nor was any allusion made to that other constitutional provision giving to Congress the power to make needful rules, etc., which certainly gave to Congress much greater power than is possessed by an ordinary proprietor. If the court decided that it did not do so, or did not apply to lands within a State, or decided anything else upon a question of such vast importance, it did so *sub silentio* by saying nothing about it. That is not the way in which that court settles questions of such importance.

From the beginning, the whole policy and practice of the Government, in respect of its public lands, has been based on the generally unquestioned power of Congress to legislate for their disposal, management and protection, in both Territories and States, and with the frequent approval of the Supreme Court. It is needless to refer to these various acts of legislation as to lands in States and Territories. Their name is legion; but, each and every one of these acts was the assertion and the exercise of federal jurisdiction and sovereignty, and of a right far superior to that of any mere proprietor as to lands within a State. This must have been either because, in the admission of the State, the jurisdiction

necessary for that purpose was either expressly or impliedly reserved—the latter of which is not probable—or because the constitutional provision referred to confers that power; and this would seem a quite sufficient source of power.

In Gibson v. Choteau (13 Wall., 92) it is said in the syllabus that "The power of Congress, in the disposal of the public domain, can not be interfered with, or its exercise embarrassed by any State legislation." And on page 99, "With respect to the public domain, the Constitution vests in Congress the power of disposition and of making all needful rules and regulations. That power is subject to no limitations." Nothing could be more conclusive that this constitutional provision applies also to lands within a State, and that the legislative power thus conferred is paramount.

In Jorden v. Bennett (4 How., 169) it is said (p. 184) "By the Constitution, Congress is given power to dispose of and make all needful rules and regulations respecting the territory and other property of the United States: for the disposal of the public lands, therefore, in the new States where such lands be, Congress may provide by law; and having the constitutional power to pass the law, it is supreme: so Congress may prohibit and punish trespassers on the public lands. Having the power of disposal and of protection, Congress alone can deal with the title, and no State law, whether of limitation or otherwise, can defeat such title."

This was the holding of the Supreme Court up to the time when the Fort Leavenworth case was decided, and it is not supposable that that Court intended to then overrule these cases and deny this legislative power of Congress, and all other powers save such as belong to an ordinary individual proprietor, while making no reference whatever to its previous holdings. That it did not so intend is manifest from the only other case which I shall cite on this question—that of Camfield v. United States (167 U. S., 518), where it is said in the syllabus:

"The Government of the United States has, with respect to its own lands within the limits of a State, the rights of an ordinary proprietor to maintain its possession and to prosecute trespassers; and may legislate for their protection, though such legislation may involve the exercise of the police power."

On pages 524, 525, the powers of the Government, both as an individual proprietor and as a sovereign are well stated:

"The lands in question are all within the State of Colorado. The Government has, with respect to its own lands, the rights of an ordinary proprietor to maintain its possession and to prosecute trespassers. It may deal with such lands precisely as any private individual may deal with his farming property. It may sell, or withhold them from sale. It may grant them in aid of railways or other public enterprises. It may open them to pre-emption or homestead settlement; but it would be recreant to its duties as trustee for the people of the United States to permit any individual or private corporation to monopolize them for private gain, and thereby practically drive intending settlers from the market."

And on page 525:

"The General Government doubtless has a power over its own property analogous to the police power of the several States, and the extent to which it may go in the exercise of such power is measured by the exigencies of the particular case. If it be found necessary for the protection of the public, or of intending settlers, to forbid all enclosures of public lands, the Government may do so, though the alternate sections of private lands are thereby rendered less valuable for pasturage. The inconvenience, or even damage, to the individual proprietors does not authorize an act which is in its nature a purpresture of Government lands. While we do not undertake to say that Congress has unlimited power to legislate against nuisances within a State which it would have within a Territory, we do not think the admission of a Territory as a State deprives it of the power of legislating for the protection of the public lands, though it may thereby involve the exercise of what is ordinarily known as the police power, as long as such power is directed solely to its own protection. A different rule would place the public domain of the United States completely at the mercy of State legislation."

This, so manifestly the correct doctrine, would seem to cover and to settle the whole question, and to authorize the proposition that, as to public lands within a State, the Government has all the rights of an individual proprietor, supplemented with the power to make and enforce its own laws for the assertion of those rights and for the disposal and full and complete management, control and protection of its lands.

Among these undoubted rights is the right of absolute or partial exclusion, either at all, or at special times, and for any or for special purposes.

While Congress certainly may, by law, prohibit and punish the entry upon, or use of any part of, these forest reserves for the purpose of the killing, capture or pursuit of game, this would not be sufficient. There are many persons now on those reserves by authority of law, and people are expressly authorized to go there, and it would be necessary to go farther and to prohibit the killing, capture or pursuit of game, even

though the entry upon the reserve is not for that purpose. But, the right to forbid intrusion for the purpose of killing game is one thing, and the right to forbid and punish the killing, *per se*, and without reference to any trespass on the property, is another. The first may be forbidden as a trespass and for the protection of the property; but when a person is lawfully there, and not a trespasser or intruder, the question is different.

I am decidedly of opinion that Congress may forbid and punish the killing of game on these reserves, no matter if the slayer is lawfully there and is not a trespasser. If Congress may prohibit the use of these reserves for one purpose, it may for another; and while Congress permits persons to be thereupon and use them for various purposes, it may fix limits to such use and occupation and prescribe the purposes and objects for which they shall not be used, as for the killing, capture or pursuit of specified kinds of game. Generally, any private owner may forbid, on his own land, any act that he chooses, although the act may be lawful in itself; and certainly Congress, invested also with legislative power, may do the same thing, just as it may prohibit the sale of intoxicating liquors, though such sale is otherwise lawful.

After considerable attention to the whole subject, I have no hesitation in expressing my opinion that Congress has ample power to forbid and punish any and all kinds of trespass upon, or injury to, the forest reserves, including the trespass of entering upon or using them for the killing, capture or pursuit of game.

The exercise of these powers would not conflict with any State authority. Most of the States have laws forbidding the killing, capture or pursuit of different kinds of game during specified portions of the year. This makes such killing, etc., lawful at other times, but only lawful because not made unlawful. It is lawful only when the State has power to make it lawful, by either implication or direct enactment. But, except in those cases already referred to, such as eminent domain, service of process, etc., no State has power to authorize or make lawful a trespass on private property. So that, though Congress should prohibit such killing, etc., on its own lands, at all seasons of the year, this would not conflict with any State authority or control. That the preservation of game is part of the public policy of those States and for the benefit of their own people is shown by their own legislation, and they can not complain if Congress, on its own lands, goes even farther in that direction than the State, as long as the open season of the State law is not interfered with in any place where such law is paramount.

It has always been the policy of the Government to invite and induce the purchase and settlement of its public lands; and as the existence of game thereon and in their localities adds to the desirability of the lands, and is a well known inducement to their purchase, it may well be considered whether, for this purpose alone, and without reference to the protection of the lands from trespass, Congress may not, on its own lands, prohibit the killing of such game.

Your other questions relate to the method of enforcing these federal powers, if they exist—to the nature and kind of laws therefor. While such questions are peculiarly for Congress, yet, as you request it, I will suggest what occurs to me.

You very properly suggest the power of Congress over interstate commerce as tending indirectly to this end, by prohibiting interstate transportation of game, living or dead, or of the skins or any part thereof. There is some legislation on that subject. I do not take the pains to examine this to see how sufficient it is. If not already done, something to the end desired may be accomplished in this way; but, as a remedy, this would fall far short of what is required.

You allude to the aid and co-operation of forest rangers and those in charge, for the enforcement of State laws. This would be well; especially in the way of securing good feeling and harmonious action between federal and State authorities. There is a provision for that in the Act of March 3, 1899 (2 Sup. Rev. Stat., 993), but it simply imposes a general duty, and should be more specific as to what acts are required to be done.

In this connection, and with reference also to the general protection of these reserves and the other public lands from fires, cutting timber, killing game, and other depredations, I suggest, in view of the existing law as to arrest without a warrant, that it might be well to give marshals and their deputies, and the superintendents, supervisors, rangers and other persons charged with the protection of these reserves, power, on the public lands, in certain cases approaching "hot pursuit," to arrest without warrant. Complaints come to this Department that very often the place of illegal acts is so far from the office of any magistrate, and the means of communication are such that, before formal complaint can be made and an officer with a warrant sent there, the offenders are beyond successful pursuit. I commend this to your consideration. No matter what laws we may have for the protection of these reserves, the public lands generally, or the game, they are in many cases wholly inefficient, owing to

the impossibility, under the present law as to arrests, of their enforcement.

There are already many statutes against setting fires, and trespassing on the public lands. Perhaps these are sufficient, as far as laws go. I do not examine this; but, as to the protection of game on forest reserves, drastic laws for that purpose, together with better means, as above suggested, for their enforcement, are required.

I suggest making it an offense to enter or be upon or use any portion of a forest reserve for the purpose or with the intent to kill, capture or pursue certain specified kinds of game; or to kill, capture, or pursue, with intent to kill or capture, such game, on any portion of such reserve. I should do this for the whole year as to some kinds of game, at least, and make such killing, capture or pursuit the evidence of such purpose or intent. The latter clause, as you will see, proceeds against the act itself, irrespective of any trespass on the lands, if, indeed, such act does not necessarily involve a technical legal trespass. This may be questionable in case, for example, when one who is properly there, kills game. I should insert it, at any rate, and it would, with the other, operate as a preventive.

Respectfully,

P. C. Knox,
Attorney-General.

THE PREDICAMENTS OF A POET.

CHARLES N. DOUGLAS.

His lady's locks of Titian red inflamed the poet's soul,
And soon with frenzy fine, and wrapt, his eye began to roll.
He hied him home and seized his lyre, and gaily twanged and smote,
And then a matchless sonnet to those ruddy locks he wrote.
Then with his poesy to his love he straightway hurried back.
But oh! ye Gods! that Titian hair was now a raven black.

Homeward in haste the poet hied, there was no time to lose;
And soared Parnassan heights afresh, and wooed anew his muse.
And forthwith then he grabbed his lyre and smote it many a smack;
Then wrote his lays in frenzied praise of tresses raven black.

Then, with his sonnet sought his love, alas, poor hapless clown!
The fashions they had changed, and now his lady's locks were brown.

The poet tarried not, nor wept, but hastened home full swift,
And in the praise of nut brown hair his voice right soon did lift;
And on the parchment glowing words of eloquence express
The poet's adoration of each silken, glossy tress.
Then rushed unto his lady love, in horror to behold
That nut brown hair that once was there was now peroxide gold.

MORAL.

While fashion sways the sex called fair
It would be wise, mayhap,
In writing sonnets to their hair
To keep all hues on tap.

"Do yez keep an assistant to the cook?"
"Yes."
"And do be the assistant have a helper?"
"She has."
"And have yez a kitchen maid to clane up after the assistant's helper?"
"We have."
"Well, I'll give yez a week's trial."—Brooklyn Life.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman

FOR AND AGAINST BIRD DOGS.

I think A. A. W., Glade Mills, Pa., expressed a most sensible opinion as to the cause of the decrease of game birds. Kill off the bird dogs, as well as the hounds. Stop using dogs for any kind of hunting. A man who uses a bird dog is just as bad as the one who hounds deer. I have a few hounds, but under no circumstances have I ever allowed them to chase deer. My hounds will never be used for anything but bear, cats, coyotes and such game.

There is no good sportsman in these parts who uses a dog, and there is only one trained bird dog within 40 miles of here. Yet we get good bags, and rarely make hogs of ourselves. A dog should not be used for any kind of hunting, save, possibly, for bear. Those animals can hardly be secured without a trap or a pack, and are about the only game one can use a dog on and remain a sportsman. No one can give a good reason why the use of dogs should not be forbidden in any kind of shooting. If Jones or Smith can use dogs in hunting quail, then I maintain that I can hound deer without violating any rule of sportsmanship.

Mr. Editor, the only excuse I know of your ever having made for the man with the bird dog is this: The pleasure of seeing a well trained dog work and the securing of wounded birds that would otherwise get away and eventually die. Did you ever see as many, or as large a percentage, of birds escape crippled as you have seen crippled deer? I think not. A deer is a much larger mark, but what a number are crippled instead of killed. The party of 4 I hunted with last fall killed 4 deer and crippled 3. Had dogs been used to follow those cripples, 2 of them would probably have been secured.

Every argument that can be made in favor of using a dog on birds can be made with just as much force for its use, properly trained, for deer. I wish it distinctly understood, though, that I am entirely opposed to hounding deer. I am opposed to the use of a dog for any kind of hunting.

B. L. Cunningham, Fort Klamath, Ore.

I notice that A. A. W., of Glade Mills, Pa., thinks the extermination of birds is due to the use of dogs in hunting them. He compares the hounding of deer and their slaughter to the work of setters and pointers on birds. I think he is wrong. Twenty-five years ago, in my native town, Tolland, Mass., birds were plentiful and tame; to-day they are plentiful but exceedingly wild. Formerly hunting dogs were unknown; now they are numerous. I belong to a club of 40 members, which controls the hunting and fishing over 3,000 acres in that town. Every member owns a dog and some own 2 or 3. The birds have learned to associate the appearance of a dog in the brush with the crack of a gun, and as a result the hunter who gets 3 or 4 grouse in a day is exceedingly fortunate.

Foxes and other vermin kill 50 birds to one killed by the gun. Put a bounty on foxes, skunks, hawks and owls; limit the game bag and forbid the sale of game and birds will increase instead of diminishing. It is the market hunter who does most mischief. When he can not sell his birds his occupation is gone and he gives up shooting. If a law is passed forbidding the use of dogs to hunt birds I am ready to give up shooting. It is the intelligence manifested by my dog that I enjoy far more than the killing of a bird.

Keep up the good work you are doing and your friends will become numberless as the results of your labors become better known.

H. A. Pratt, N. Y. City.

A. A. W., Glade Mills, Pa., has a level head. It is a fact that if there were fewer bird hogs with their bird dogs there would be more birds. As long as dogs are used in hunting, game can not increase. There are not less than 20 bird dogs in this little place, and not many more birds, where once grouse and quails were abundant. Away with the dogs, or put a tax of $10 on each one and use the money to restock our woods and fields.

T. U. M., Tecumseh, Mich.

KILL THE FARMER'S BEST FRIENDS.

A writer in a paper published in Southern California says:

"Kill them!"

"Kill what?"

"Oh, the horned toads! They are the only thing we have that destroys the red ants with their agonizing sting, and prevents them from multiplying into innumerable millions. So, if you can not sell the toads for a nickel apiece, to be mounted and sent East as curios, just set your heel on them when you see them.

And there are the gopher snakes; slow, harmless fellows. Watch one work for an hour or 2. See him crawl into every gopher hole there is in your measly little orchard, and, after swallowing all the young gophers he can find, watch him turn his atten-

tion to the rat holes on the edge of the wheat field. He minds his own business, and attends strictly to it. What! tired of watching him? Well, then, kill him just because he is a snake, instead of a bleareyed, pampered poodle that you have to feed on sponge cake, just for the few fleas you can get off from him.

"Then there are the birds. Here we have a pair of sweet voiced meadow larks; they stand confidingly close to the edge of the road. Get your gun! Shot gun or rifle, it matters not which and wantonly butcher them lest they escape and destroy 100 times their weight in cutworms. Shoot the pretty, waggish roadrunners. They feed on scorpions and centipedes, and prevent their becoming a menace and making life a burden to man. But, then, the idle Sunday loafer, with his death-dealing 22 rifle, must be amused. Shoot the *tucalotos,* the pretty little ground owl that politely bobs good morning to you. Shoot them! Even though a man of veracity on the Chino ranch claims to have found 17 gophers, old and young, in the nest of a family of *tucalotos.* They are too good to live; too innocent and self sustaining. Shoot them!

"Shoot the hawks; the little kites, or sparrow hawks. Of course they live on the mischievious linnets; but that does not matter.

"Shoot the hen hawks! In this country they live on mice, rats and rabbits, but there is a legend from the East that they sometimes eat chickens. So be sure to shoot them; they make such a fine target.

"Shoot the best friends of the rancher, the coyotes. It is true they take a chicken now and then; but don't you know it requires 3,000 pounds weight—1½ tons—of rabbits, rats, gophers and the worst pests that the ranchers have to contend with to feed one of these wild, self-supporting dogs until he is a year old? While your 3 or 4 lazy house dogs have eaten the price of 100 hens and sucked all the eggs they could find. These are necessary to bark at night and impress all your visitors with the need of going armed; but shoot the coyotes.

"There is another class of brutes that really ought to be shot. Take them far out on the desert, for they are not worth burying. They are the thoughtless, heedless shooters who are indiscriminately killing and crippling the best friends that the farmer and the orchardist has in California."

SPARE THE GREY SQUIRREL.

Why shoot the grey squirrel? The world is wide enough for both him and you. His flesh is not good. No man or boy able to own or borrow a gun can need the flesh of this creature as hunger-satisfying food. The idea is ridiculous; and there is not enough sport in so tame a pastime as squirrel shooting to justify the killing of a creature which, if left alive and protected, speedily becomes the farmer's intimate friend.

Thirty years ago, in the dark ages of American sport, squirrel shooting attracted many men with guns. In those days, gunners roamed at will through field and woods to slay; but today thousands of American farmers are protecting their squirrels. I know of farms in New York, Michigan and Indiana whereon the squirrels are protected, even at the point of a naked revolver when it becomes necessary. I believe in squirrel protection on just that basis.

The grey squirrel is one of the most interesting, beautiful and sociable creatures that a farm or forest or city park can possibly have. Any person whose soul is not appealed to by the beauty of grey squirrels wild in their haunts is "fit for treason, stratagem and spoils." But there are creatures called men, in whom the finer qualities of manhood are so dormant that they take delight in hunting squirrels in the unimproved and unprotected parks of New York City. They are the men who cut park timber in the night, rob hen roosts and steal doormats and slop pails. Boys, do not join the class of these human vermin.

Squirrels are not good food. I know of no other civilized country than America in which they are eaten. An Englishman would as soon eat a rat as a squirrel. They are exactly on a par with woodchucks and prairie dogs. The taste of squirrel flesh is rankly "game" and to many persons it is unendurable. The value of a living wild grey squirrel is to a dead one as five hundred is to one. Don't destroy them! Protect them and enjoy them!

W. T. Hornaday, New York City.

I should be sorry to see even the grizzly bear actually exterminated, although it is undoubtedly a dangerous animal; but I think it will be little short of a national calamity if we do not save from extirpation such a harmless and beautiful creature as our grey squirrel. There are just as many good reasons for having tame grey squirrels in our city parks as there are for having beautiful pictures in our city galleries.

Ernest T. Seton, New York City.

HOW TO HUNT GREY SQUIRRELS.

In a previous number of RECREATION there is an inquiry as to the best method of hunting grey squirrels where they are scarce. The following method might be adopted as the only decent one:

Arise early in the morning, go into some thick grove of oak, beech or chestnut, where squirrels are occasionally seen, and await their coming. Have as weapon one Eastman Kodak with rapid rectilinear lens

and Eastman triple action pneumatic shutter; and for a load a No. 4 cartridge is about the proper thing. Any person adopting this method will have better luck and more real sport in 2 hours than if he goes into the woods for all day armed with a more deadly weapon, destroying the lives of every grouse and squirrel he can, and comes home and boasts of being a mighty Nimrod, better known to readers of RECREATION as a game hog. I have frequently heard people say it is impossible to be a game hog in Vermont. That is not true. As game is scarce here it is not necessary to make so large a kill in order to be branded G. H. as black and deep as where game is more abundant. C. C. Manley,
L. A. S. Local Warden, Chittenden, Co., Vt.

ANSWER.

You are correct as to your method of hunting grey squirrels, and it is the only way that any man or boy should ever adopt. Fortunately there is no close season on this kind of hunting, and the more people do of it the better. I offer one amendment. Bait the squirrels with corn or nuts in an open place, every day for several weeks, or even months. If you will do this you will find that certain of them will learn to go every day to get their rations. When you have once induced them to visit their boarding house regularly, set up your camera, focus it on that spot, attach a long hose, take the bulb in your hand, hide behind a bush or log and wait for the visitors. When one comes press the bulb and the camera will do the rest.

In this way any man or boy who has a camera may secure a trophy that would be worth more to him than 100 dead squirrels would be, and he can look at it and show it to his friends with a clear conscience; whereas no man should be able to look on a squirrel he has killed without feeling ashamed of himself.—EDITOR.

A PROPOSED GAME PRESERVE.

It need not surprise Woodstock's visitors to see in the future a game preserve of 1,800 acres or more within easy distance of the village, and in it all kinds of game adaptable to the Vermont climate. A large tract has been selected in the Southwest corner of the town, 7 miles from Woodstock and 2 from Bridgewater. It is already stocked with fish and game. Three trout brooks run through it. It is believed the enterprise will interest people with means to push it through, as Dearborn & Co. make a liberal offer of 300 acres of land, including 7 mowing fields, and buildings suitable for the caretakers of the park, at $2 an acre—just what it cost them. They will also sell some 1,500 acres adjoining, of which they have the sale, at what they can buy for, without any commission; much of it at $1 an acre, comprising pasture and woodland; no buildings or highways to buy up.—Woodstock (Vt.) paper.

The above clipping outlines a scheme in which I hope to interest brother sportsmen. Nature and location have combined to make an ideal game park of the land in question. It is a block of abandoned farms, as the still blooming rose and lilac bushes testify. The old orchards are still in bearing and wild deer feed on the apples. Twenty-five years ago these hills were covered with sheep, but the great decline in wool put an end to that industry. Since then the land has been permitted to grow up wild. Besides the original forests there are plenty of young spruce, hemlock and shrubbery.

Adjoining these 1,800 acres are 2,000 more that can be bought for $1 an acre, making a park containing 4,000 acres. Enough deer could be enclosed with it to stock it thoroughly. Deer were protected in this State nearly 30 years, and are now abundant in Windsor and Rutland counties. This land is almost in the heart of the deer country.

I have no dull ax, being interested in the matter only as a sportsman who has known the region from boyhood. I hope a sufficient number of sportsmen may be attracted to this favored spot to make the plan a success. I cheerfully vouch for Dearborn & Co., of Woodstock. They are truthful and honest people, and will answer all letters cheerfully.

J. H. Hoadley, South Woodstock, Vt.

CHILDREN READ RECREATION.

One of the great problems confronting lovers of game animals is their protection from the bloodthirsty men whose only desire is to kill all they can. One thing is certain: Our hopes can be realized only through popular education. To help in this work I have 2 suggestions to make:

I notice that nearly all children enjoy RECREATION. Even my tots, too small to read, will look through my copies repeatedly. Let each reader of this magazine call his children's attention to the teachings of RECREATION. It is an enemy to game hogs, and a manual of mercy to game. I feel sure no child could grow up a slaughterer under such training.

Let the friends of game protection strive to secure as subscribers the principal hunters of our communities. RECREATION should go into the hands of boys and young hunters. Would it not be a demonstration of our sincerity along this line to spend a few dollars if need be in putting RECREATION into the hands of some of the young? Mr. Shields' work is an unselfish one. Let us help him.

F. S. O., Mexico City, Mo.

BABCOCK AND HIS HERD AT IT AGAIN.

The guests of E. S. Babcock returned yesterday from one of the best of the season's meetings at Otay. Lined on the lake 13 in number, the shooters closed in on the game, which pos-

sibly outnumbered to the area that of any other place in the world, and when the birds attempted to take flight the shooting began. Exactly 1,878 birds were killed on Monday morning, several of the hunters making excellent records. The following named participated in Monday's shoot: Mr. Lipop, U. S. A.; Mr. Dillon, Los Angeles; Frank Ecker, W. L. Tibbals, Dr. Edwards, Dr. Parsons, F. M. Doak, T. A. Johnson, Mr. Flynn, of Los Angeles; F. B. Naylor Geo. Benson, and C. P. Douglas.

In the afternoon Mr. Babcock extended the courtesy to Dr. Walcott and his party, who had driven over to inspect the Otay dam. Mr. Walcott, Mr. Wilson and Mr. Lippincott availed themselves of the opportunity for a small sized duck hunt, and brought down 90 ducks in an hour, after which they took a turn at fishing, having to their credit 70 bass in a short period. San Diego, (Cal.) *Union*.

And the California papers continue to record the slaughter done by these vulgar brutes as they would the doings of decent people in any good work. Verily, there are some so-called educators who are sorely in need of education.—EDITOR.

GAME NOTES.

Some time ago you recommended E. E. Van Dyke to me as a guide on a trip which I contemplated taking, and you asked me to report my success. While with Mr. Van Dyke I killed 2 silvertips, one black bear, one 7-point bull elk, a large mountain sheep, a lynx and plenty of feathered game. I could have killed deer and other large game but I, as well as Mr. Van Dyke, thought we would better leave them for next year. I saw one large bull moose on a lake, took a shot on the run, but did not get him. The trout fishing beat anything I ever saw. I caught a number that weighed 3½ to 4 pounds each. I could have caught 150 pounds a day with a fly if I had wished. Mr. Van Dyke is a gentleman, a first class guide and hunter. He gave me the best time and most game I ever had on any trip, either in this country or in Europe.

Ed De Temple, Chicago, Ill.

I am of opinion that the game law as at present constituted is unjust to sportsmen in the Northern portion of Minnesota. Uniform game laws in a State over 300 miles in extent North and South must be unfair in some portions of it. We are not permitted by the present law to shoot plover until September 1st. The plover arrive here early in August and are gone entirely by the last of that month. Hence we get no shooting at all on plover. Our prairie chickens are full grown by August 20th, and the season is practically over by the middle of October. We should be given at least a week the advantage of sportsmen in the lower part of the State. Make the season on chickens August 20th to October 20th, instead of September 1st to November 1st; likewise on all game birds up here.

Lewis B. Franklin, Hallock, Minn.

We recently had an unfortunate occurence on our road, which I think worthy of note. One morning while our log train was on its way to the woods with 30 flat cars and a coach, the engineer saw a large doe running toward the track. When she reached it she attempted to jump over one of the flat cars, and would have succeeded had she not chosen the one nearest the coach. The train was moving rapidly, and, as a result, the doe struck the coach with such force as to kill her and smash several windows in the car. A man in the coach, thinking there was a wreck, jumped off the back platform and landed on the dead doe. When picked up he said he thought he killed the deer by falling on her.

Deer are still numerous here, though some men persist in hounding and in shooting them in close season.

W. M. Kummer, Au Sable, Mich.

For a camping trip, I like bacon, prepared pancake flour and what is known as Swede bread, coffee, sugar, salt, pepper, and some canned goods. It all depends on whether you are carrying your own goods or have a burro, canoe, or other means of transportation. Swede bread is made of ordinary dough, rolled thin, punched full of holes with a fork and baked in large sheets. It will keep a long time, and is much better than hard tack.

A frying pan, a coffee pot, a large long-handled stew pan with a cover, and spoons make up the outfit. You can bake in the stew pan. Sleep with your side toward the fire, and don't make the mistake of making too big a one. Cooking can be done better over the coals than over the flame. W. R. Jackson, Pasadena, Cal.

Am glad to say that gull shooting has entirely ceased here. All game buyers have received orders to stop taking even the few gulls the duck shooters were bringing in. No one has followed gull shooting as a business since last summer, but now and again a man would bring in a gull or 2 and sell them. Now even that has been stopped. We are, I understand, to have a general overhauling of our laws and a determined effort will be made to stop battery shooting and shooting from sail boats. That will not touch the spot at all. The market is the thing to close. There are a few ducks about, but all are educated. They sit in the ocean all day and come in the sound at night to feed; so but few are killed. A. S. Doane, Waterlily, N. C.

For 3 years I have made a standing offer of $10 for information that would lead to the conviction of any violator of the game laws. One day last winter I sent my neph-

ew, Earl M. Brooks, out in the country to see a certain farmer and get him to help catch some fellows who were shooting chickens and quails on the snow. He caught the farmer himself and a neighbor with 4 quails they had potted. It cost them $10 and trimmings, and should have cost them more. Now I am surrounded by a ring of squealing game hogs, who think it "too bad to prosecute innocent farmers, when others are breaking the law." I will get some more of them yet, and shall consider it cheap at $10 a shot.

A. L. Brooks, M.D., Audubon, Ia.

I have just returned from Newfoundland, where I enjoyed caribou shooting beyond anything I expected, and I attribute my success largely to the good advice given me by you. George Nichols was our guide, and he was all one could ask for in that capacity. The trip was a success in every respect, and it will be remembered in years to come with pleasure greater than any other I have taken. I secured 2 fine stags almost on the same spot where you shot yours. The largest number of caribou sighted in one day was 64 and the smallest 7. We were in camp 8 days. Left home October 12th, and returned November 4th. C. W. Winspeor, of Newark, N. Y., accompanied me.

G. J. Van Vachten, Oneonta, N. Y.

Have just received my first copy of RECREATION. It seems to me a magazine of the right sort for sportsmen. I wish we had a similar publication in Canada. Our game is being rapidly exterminated by Indians, who kill all they can, and by so-called sportsmen, who can not distinguish a doe from a buck. This being an unorganized district the law can not punish anybody killing game out of season, as was proved last year when a constable ran in some men and was hauled over the coals by the authorities for so doing. Owing to that a petition has been sent to Victoria, and I hope we shall obtain protection. If not, we shall have to go far away for our sport in the future.

J. F. Campbell, Pentichin, B. C.

As Mr. Geo. Severance was returning home one day last winter he discovered a dead grouse by the roadside. He got out of his sleigh and picked up the bird. Its head had been severed from the body as neatly as if by a knife, and the body was still warm. Mr. Severance at once began an investigation. Nearly 20 rods from where the bird lay he saw, clinging to a telephone wire a little tuft of feathers, and directly beneath lay the head of the grouse. The bird had evidently been crossing the road in swift flight, possibly to escape from a hawk, and striking the wire had decapitated itself, while the body passed on by its own momentum.

E. G. Moulton, Derby, Vt.

I am sorry to see the public persistently misinformed by the Tacoma Ledger regarding elk in the Olympic mountains. On the Western slope of that range elk are steadily increasing. The rangers have kept Indians out of the forest reserve, and game hogs find the hunting there too hard to suit them. I saw a band of elk last fall and counted 44 head, and there were more in the brush. A band of over 100 were seen on Queets river last spring. Deer are abundant in spite of numerous wildcats and cougars that prey on them. Grouse are not plentiful; cats and hawks keep them thinned out.

Geo. Y. Hibberd, Queets, Wash.

I have a fine silver tip bear hide, Indian tanned and nicely stretched. I wish to make a rug of it, and wish you would tell me how to prepare the head and soften the hide. A .R., Louisiana, Mo.

ANSWER.

That is a job for a taxidermist or a fur dresser, and I would not advise you to undertake it yourself. It would take any man a year or more to learn to do such work in a creditable way. I therefore advise you to send it to any taxidermist who advertises in RECREATION. You would then get a good job.—EDITOR.

I spent 3 months last fall in camp at Kickapoo Springs, Texas, about 40 miles from Brackettville. Though I hunted every day, and saw plenty of deer, turkeys, quails and ducks, I killed only enough game to supply the camp with meat. Al Wallis, a hunter and trapper living in Edwards county, killed 116 deer last season and sold the hides to Roach & Peterson, of Brackettville. In killing those deer he probably wounded half as many more. He has practically exterminated the game of a region which a few years ago abounded with deer and turkeys.

L. Lehman, Fort Douglas, Utah.

One day last winter a doe ran through the streets of this city, finally dashing through a door into a shop. There she fell either from exhaustion or fright. Some men secured her, put her in a wagon, carried her 2 miles from town to a spot where deer had been seen, and there let her go.

E. M. R., Concord, N. H.

Those men should be voted a pension of $25 a month for the remainder of their lives. There are few such men living. The

average unthinking mortal would have killed the doe and hung her up in the back yard or cellar.—EDITOR.

Please explain how a birch bark canoe is made. Reader, Sandy Creek, N. Y.

ANSWER.

I do not think anybody can tell you how to make a birch bark canoe. You would have to see one made, and there are but few white men who make them. It would probably be necessary for you to go to Wisconsin or Michigan and see the Indians make their canoes. The Indians in Maine used to make them, but there are practically no birch trees there now that are large enough, and there are only a few in Michigan and Wisconsin.—EDITOR.

I saw in RECREATION an inquiry as to whether there are any mountain sheep, or big horns, on the Pacific slope. We have them on the coast of Alaska, the same as the Rocky Mountain sheep, only white in color. I have guided 3 hunting parties from England and one from Chicago, and all got a good number of specimens. Besides moose and bear, there are plenty of sheep here within 40 miles of salt water. We often get moose and bear on the beach of the inlet.

Wm. Hunter, Kenai, Alaska.

Some readers of RECREATION think quails ought to be protected for 5 years. I think they should be protected 500 years. There is a flock of 18 or 20 birds near my home, and all through the cold weather they fed at our corn crib and around the house. I shot 4 of them early in the season and then let them go, and am not going to shoot any more. We have good pointer dogs and shoot a few chickens in the fall. There is a fair number of them now, though they had been scarce 5 or 6 years.

T. Y. Shear, Thawville, Ill.

I have been in this country nearly 8 years. Game hogs, firebugs, fish hogs and timber thieves have materially lowered the price of real estate. Six years ago I saw a train of wagons coming from the Priest lake country. The snow was about a foot deep. "What luck?" I asked. "Oh, pretty good. We got 213 deer and 5 caribou," was the answer. "Yes," he added, "the dogs ran as many more that we didn't get. Most of them went over the divide."

S. G. M., Rathdrum, Idaho.

In a recent number of RECREATION E. M. B., Lead, S. Dak., accuses the soldiers at Fort Meade of slaughtering game, and calls them shoats. During my service at Fort Meade in the hunting season of '98 I saw nothing unsportsmanlike in the conduct of the men. I have always found soldiers good sportsmen, perfectly satisfied with a small quantity of game. Deer were abundant here last fall and could be found within half a mile of the post.

Dr. C. E. Macdonald, U. S. A.,
Fort Yates, N. D.

There are many people here who have no regard for the game laws. Recently a man went out hunting and as he could not hit anything he tried to shoot some meadow larks, but he could not hit them either. Some of the L. A. S. boys got after him and he afterward said he was glad his aim was not true. We are trying hard to get boys to join the League and have succeeded well so far.

James Montgomery, Erie, Pa.

I am much interested in the fight against spring shooting. If we win, ducks will, within a few years, be nesting in this State, as they now do in Canada. It is amazing that ducks have not been exterminated before this when you consider that there is hardly a month in the year when they are not being hunted somewhere on the continent. Stop spring shooting and the sale of game and there will yet be plenty of sport for us all.

Y. F. Close, Middletown, N. Y.

Game is going fast in this country, and unless better protected will soon be gone. Gold Butte is in the sweet grass hills. We have no large game to speak of, but grouse are abundant, and there are a few ducks and geese. The unlawful killing of deer and sheep along the Missouri, between the Yellowstone and Fort Benton, should be looked into. You are doing better work than you think, and the country can never repay you.

Harry Feed, Gold Butte, Mont.

The only way to save our game is to prohibit market shooting entirely. Recently I heard a farmer tell how he was returning from town one evening and saw a flock of quails settling for the night. He drove on home, several miles distant, got his gun, and, returning to the place, fired both barrels at the birds on the ground, killing 21. He certainly would not have gone to the trouble had he not known he could sell the quails. X, Hartford, Conn.

Owing to general observance of the game laws game is becoming more plentiful here. Quails were numerous last fall, and but for the unusually cold winter they would have been abundant this year. Rabbits threaten to become a nuisance in the near future.

I should like to correspond with RECREATION readers in Western Oregon and Washington relative to hunting and farming opportunities in that region.

F. B. Barber, Colebrook, O.

Black, brown and grizzly bears are fairly plentiful here. Our brown and grizzly bears are unusually large. I have seen one hide that measured 6½x11 feet. Deer are abundant, but will not long remain so unless game laws are enacted for this Territory. Ducks are numerous, especially mallard, teal, widgeon, spoonbill, scaup and golden-eye. All are so wild, however, that 10 or 12 is considered a large bag.

W. W. Goldstein, Juneau, Alaska.

We had good redhead and brant shooting at Chincoteague last season; also a good flight of snipe, which seem on the increase. Plenty of quails were left over. In November we had the best flight of woodcock known in many years. Our game association is doing good work through our wardens. We need a nonresident license law. Can not you help us get it?

Henry E. Byrd, Temperanceville, Va.

I seldom miss the open season for deer. There were 3 men in our party last November. We hunted in Schoolcraft county, Michigan. Deer were plentiful, but extremely hard to locate, owing to the carpet of dry leaves in the forest. We were successful in getting one deer each, and a peculiar feature was that they were all yearling bucks, so you may class us as "short horns." A. A. Divine, Elk Rapids, Mich.

Chickens, quails and squirrels are fairly plentiful here. Foxes and wolves keep rabbits from becoming numerous. Game hogs and pot hunters have things their own way. Ducks are abundant. The Rice Pond Club has a great tract of fenced land on which they feed ducks 5 days a week and slaughter them the other 2. One member killed $1,700 worth of ducks last fall.

C. E. Hinch, Washburn, Ill.

Prairie chickens and quails were plentiful here last fall. Though a great deal of market hunting was done during the open season, birds are to be found in large number now. There is some talk of a 5 year law in this State. If such a law shall be passed there will be a good prospect for abundance of chickens and quails in this part of the State for years to come.

Geo. N. Nellis, Dannebrog, Neb.

In my opinion RECREATION is the best sportsmen's magazine published. I approve the stand you have taken for game protection and the manner in which you deal with game hogs. That class of people can not be too harshly dealt with. As they have no sympathy for the game they so ruthlessly slaughter, no sympathy should be shown them.

Dr. C. B. Corson, Renova, Pa.

There was but little illegal hunting in this vicinity last winter. A few deer were brought here from Pasaconaway and sold surreptitiously; but the hounds that formerly chased our deer have disappeared. The dogs went into the woods and stayed there. A number were found with holes in vital parts of their anatomy, which may have been made by rifle bullets.

H. N. Chase, Conway, N. H.

The Supreme Court in denying the application for a writ of habeas corpus in the test case of John F. Corriea, has affirmed the constitutionality of that section of the new game law known as the "bag limit," which prohibits any person from having in his possession more than 50 ducks or doves, or 25 quails in any one calendar day during the open season.—California Paper.

We have rabbits, squirrels, prairie chickens and a few ducks and grouse. Two wolves were shot here last spring after they had killed a number of lambs. Rabbits are becoming scarce because so many of our people use ferrits.

W. P. Hollister, Dodges Corners, Wis.

I enjoy trout fishing and shooting. We have lots of both in this Northern part of Ontario. I admire the way RECREATION criticises those over zealous sportsmen who slaughter game. V. C. Marshall,

Owen Sound, Ont., Can.

Deer, grouse and chickens are plentiful here. Antelope are becoming scarce. Beavers are getting so numerous that they interfere with irrigation by damming creeks and ditches. F. W., Big Elk, Mont.

Farmers here tell me that prairie chickens are as plentiful as blackbirds, so we may expect good shooting. The law will be more rigidly enforced.

L. Shannon, Audubon, Minn.

The game in this and adjoining counties consists of a few rabbits and squirrels. A good shot seldom secures more than 5 rabbits in a day.

James Jones, South Bethlehem, Pa.

I was out several times last summer looking to see how the quails were getting on. We are going to have a large crop.

R. H. McCoy, Cornwall-on-Hudson, N. Y.

THE NORTH DAKOTA HERD.

Following are the opinions of some RECREATION readers regarding the North Dakota fish hogs:

Calno, N. J.

Editor RECREATION:

December RECREATION is the best copy of a sportman's periodical I have ever seen. It is rich all the way through.

I congratulate you on making the North Dakota herd of fish pigs squeal. Their photo in November RECREATION indicates that the State of Minnesota should yoke them before allowing them again to exhibit their greed for destroying the fish of that State. It is a shame and a disgrace to any State to allow its citizens to set the pace and example of destroying game fishes, especially for judges of courts and editors of papers, all men of supposed intelligence, and knowing better. Pennsylvania and New York have suffered from the robbing of their waters and woods of their fish and game, and men like you are only warning the people of the newer States, whose game is yet abundant, to beware of fish and game destroyers. These swine rob the State of its most valuable public property, and remove from all hope of restoration to future generations a reasonable share of sport on the waters and in the forests of the country. You have not libelled the Grand Forks squealers. They branded themselves when they called in the photographer to make an indelible impression and a souvenir of their butchery. Was this not a public admission that they were the actors? If there is a law against repeating in print the truth, as depicted in photographs, will Mr. Ledru Guthrie kindly point it out? The photo of the North Dakota herd showed a wanton case of vandalism, greed and destructiveness, and the whole world should know it so they may condemn it. I have talked to over 50 men of sound judgment, and put the question to them, showing them the picture of the herd in November RECREATION, and letting them read Ledru Guthrie's letter in the December number. The usual comment was that Mr. Guthrie had placed himself in line with the North Dakota gang when he attacked you. He showed bad form, sense and taste in attempting to take on his own shoulders the burden of the Grand Forks herd, and would improve his character as a lawyer by quitting it.

M. L. Michael.

In reply to your request in December RECREATION, regarding what the readers thought of the drove of peccaries photographed in the November number, page 360, I would say if they really made that catch in the time stated, they are even worse than you pronounced them, and ought to be advertised thoroughly, so innocent sportsmen might know them when they meet, and show them the special kind of attention due their peculiar breed. You did not roast them half enough. Turn them over and scorch the other side a deep, rich brown.

Stephen Harley, Scottville, Mich.

The December issue of RECREATION is at hand, and a fine number. Your exposure of the North Dakota fish hogs was highly commendable, and should receive the hearty support of every sportsman who believes in fair play and in practicing moderation. Because a man may be highly connected in the business or social world is no reason why he should root out the last potato or appropriate the last fish. I hope you will continue to roast all such "gezers" brown.

J. A. Newton, Grand Rapids, Mich.

WHY CREELS ARE EMPTY.

Brooklyn, N. Y.

Editor RECREATION:

Being an L. A. S. member, it gives me pleasure to note the manner in which you dealt with Messrs. Bohn and Morrell, of Spring Valley and Nyack, respectively. I have fished Rockland lake, and so have many of my brother sportsmen, and I have come away with empty creels more times than otherwise. Mr. Morrell says it was considered, for Rockland lake, a good catch of bass. It might be so considered, had he been using a seine. If such depletion continues, brother sportsmen, we may look for emptier creels in future. One 4 pound fish to each man would be considered good; and 2 each of those 4 pounders would have sufficed for any sportsman, even with a large family. In a 64 page booklet entitled "Fishing on the Picturesque Erie" was published a synopsis of "Laws Relating to Fishing in New York, New Jersey and Pennsylvania," of which Section 110 relates to the legal season for catching bass, while Section 111 relates to length and number of bass per person. The following is a copy of Sec. 111: "No black bass less than 10 inches in length shall be intentionally taken from any of the waters of this State, nor possessed; and in case any such fish is caught or taken, the person taking it shall immediately return it to the waters from which it was taken, without unnecessary injury. No person shall take, catch, kill or possess

more than 24 black bass of the size permitted by this article in any one day. Where 2 or more persons are fishing or angling from the same boat, the aggregate number of bass taken, caught, killed or possessed by the occupants of said boat in any one day shall not exceed 36."

No person shall take, catch kill or possess more than 24 black bass of the size permitted by this article in any one day. Where 2 or more persons are fishing or angling from the same boat, the aggregate number of bass taken, caught, killed or possessed, by the occupants of said boat in any one day, shall not exceed 36."

A friend of mine having occasion to show this section to a party of 4 bristlers, states that they withdrew a pace and seemed to be computing among themselves. After putting off in his boat, he was surprised to see 4 boats take to the water, each containing ¼ of the aforementioned party, each intent on taking if possible his legal quota of 24 fish. My friend said, "Fortunately for the fish and some other sportsmen, there was 'nothin' doin'.' Had they all gone in one boat 36 fish would have been the limit allowed them by law. Had they gone in parties of 2 the catch could have been 72 fish; but by the 4-boat game a grand total of 96 might be taken and still the men would not have infringed." Their motto was "whole hog or none," but there was "nothin' doin'." Dame Nature dispenses as she sees fit, and like some others of the gentler sex, she will have her own way; to which I say God bless them all. The bristlers' object was to stretch the law to the full limit; but they were defeated. Hawthorne.

MR. KIRKBRIDE PROTESTS.

I read an article in January RECREATION stating that A. Wilson and I caught 150 black bass, 137 rock bass, and any number of perch at Lewiston reservoir. I am the only Charles Kirkbride in this city and I write this as a denial of everything contained in that article. I wish you to retract it. I have never fished in Lewiston reservoir, and in all the fishing I have ever done I have not caught one third that number of fish, the sum total of all my catches not exceeding 125 fish. I wish you would say for me that this A. Wilson, whoever he may be, is a dirty, sneaking, contemptible liar, and that he can, if he will make himself known, receive more than this at my hands. Please tell me why you did not ask me if Wilson's statement was true before it was published.

Chas. W. Kirkbride, Findlay, Ohio.

If I should attempt to verify every letter that comes to me, in the way you suggest, I should have to employ at least 10 additional stenographers. That would be an unnecessary expense. When a man writes, as Mr. Wilson did, that a friend and himself did so and so, it is hardly reasonable to expect me to write the friend and ask him whether the other man told the truth. You will see that in this case I doubted the truth of the story and said so in plain English. Still there are thousands of men slaughtering fish and game at as disgraceful a rate as Wilson states in his letter and so I had good reason for printing his statement, and for roasting him and his alleged friend. Inasmuch as you disclaim any knowledge of Wilson you are not damaged by the publication of his report or my comment thereon. I earnestly hope you may find the writer and that you will give him what he deserves. EDITOR.

NOVA SCOTIA SWINE.

A few of us who are subscribers to and admirers of RECREATION feel that you should be made aware of the manner in which fish hogs are slaughtering the trout in this part of the continent. With that end in view I send you clippings from the Telephone and the Telegraph, St. John, N. B. The facts stated therein are, we think, worthy of your able pen. We hope your roasting fork is sharp and the fire hot.

B. R. W., Bear River, N. S.

Following is the item referred to:

R. W. Ambrose, of St. John, is in the city. He has just come from a fishing trip up the Liverpool river, on which he was accompanied by Mr. Snook, of the Klondike hotel, Liverpool, and Mr. Wile, of Bridgewater. They captured over 700 trout.—Halifax Echo.

I wrote these men as to the truth of this report, and received the following answer:

It is true that 2 friends and I caught 700 trout and one salmon in 8 days. I have been going up the same river 15 years and our catch has always been 300 to 700. We do not have to do any bush tramping. We fish from boats in a running river.

A. L. Wile, Bridgewater, N. S.

God must certainly have made that river as a special trough for fish hogs and He must give special care to restocking it each year for their use. Otherwise it would have been barren long ago. I wish all the fish butchers in the world could be banished to that region, in order that decent men might have the other waters to themselves.—EDITOR.

A BLACK LIST.

In compliance with your request I send you a partial list of pot hunters and fish hogs living in this vicinity. The first is Albert Moon, a man over 70. He boasts that he was employed by hide hunters in

the West, helped to exterminate the buffalo, and killed hundreds of elk for their hides.

The next is M. G. Ladson. He seldom does a day's work, but spends his time fishing for the markets in the small lakes about here and in trapping. He cares nothing for game or fish laws, and as he has never been disturbed by a game warden he goes out with companions fishing and hunting at all seasons. He claims to have caught 1,500 black bass last year. Wallace Bump, Winfield Plumb, Mart. Goit, Jr., Wm. Norton and Jerry Bird are pot hunters. Charles Wayer is a fish hog. He lives adjoining my farm, and while he does not fish for the market, he and some others have nearly depleted my lake of bass and perch. He wants a peck or so to a mess, and wants it every few days. Isaac Strubler and sons are also pot hunters. It may do some good if you send copies of RECREATION to these men. Your magazine is highly interesting and deserving of the popularity it has attained.

Julien Williams, Waterford, Mich.

A SELF ACCUSED FISH HOG.

The Saturday Evening Post of October 19 contained an article on bass fishing, by J. F. Lawrence, whom the editor mentioned as "a leading capitalist of Chicago, who has made the study of game fish and their proper protection a life work and who holds the American record for having landed the largest small mouth bass." In his article Mr. Lawrence says: "Real sportsmen will willingly obey the laws and seek to promote the protection of game fish against wanton destruction. Most of this comes from pot fishers and those who lack the sportsman's instinct."

In another paragraph Mr. Lawrence says: "My prize day's fishing was in Rice lake, Wisconsin, in company with James Downey. We landed 21 muskalonge, and all big ones, too. In the old days in Gogebic lake, with a companion, I took 163 good black bass in a day. That was fishing!"

No, that's just where you lose the trail, sonny. It was not fishing; it was butchery, pure and simple; and if I were you I would never again prate of "game protection" or of wanton destruction. If ever any man wore bristles, you've got 'em, by virtue of your own boasting.—EDITOR.

TWICE TOO MANY.

Enclosed find clipping from an Illinois paper. The gentlemen (?) referred to live in Hardin, Calhoun county, Ill. I am a regular reader of RECREATION, and I hope to see something warm in the magazine regarding these parties.

D. B., Hardin, Ill.

Following is the item referred to:

Francis Grassman, Morris Fisher, J. T. Linkogle, J. D. Segress and others, caught about 230 fish last Friday in Glead slough.

I wrote these men regarding the truth of this report, and received the following answers:

There were 5 in the party that made the catch; and if our minnows had not given out we would have caught more fish, for the crappies were biting on just the heads of minnows when we quit.

Francis Grassman, Hardin, Ill.

Five of us caught 230 fish, mostly crappies. A few were bass. Hook and line fishing was good last season.

J. D. Segress, Hardin, Ill.

An average of 46 fish to each rod. The fish would doubtless average a pound each or more; so you caught at least twice as many fish as you should.—EDITOR.

NIBBLES.

Not long since, while I was at work near McMurray, Washington, the children of E. B. Caswell, the superintendent, made a dip net of mosquito netting and went to scooping up all the trout they could find. One day they caught about 300 small trout not over 2 inches long. These fish were so small the women would not clean nor cook them, so they were thrown out in front of the house. As soon as I saw what was going on I went to the children's father and told him it would have to be stopped, as I was local game warden and would prosecute him if he let the children use the net any more. He politely told me to go to h—l and prosecute till I got tired; but when I started for a justice of the peace he got down off his car and took the net away from the kids.

A. W. Stratford, Shaver, Cal.

Unlike Mr. Turner, of Munroe, Mass., I think our 6 inch trout law is right. I caught over 200 6 inch trout during the past season. Largest catch, 21. I had to put back a great many, and did not see any die from the hurt. No doubt one occasionally dies, but I don't believe one in 20 does if they are carefully removed from the hook. RECREATION is all right, and a great game protector.

E. C. Hall, Ashfield, Mass.

I have just stocked our streams here with brown trout one year old. There are plenty of quails here; saw a bevy of them in the village.

M. T. Morgan, Nanticoke, N. Y.

As the blackfish wriggled and gasped on the hot seas little Willie remarked, "I'll bet he is sorry he isn't a sunfish just now."—Exchange.

GUNS AND AMMUNITION.

Anybody can keep on shooting all day, but it takes a gentleman to quit when he gets enough.

HOW TO CLEAN A MAUSER.

Dayton, O.

Editor RECREATION:

In October RECREATION is an article by J. L. Dodson, of Bethlehem, Pa., with the above title. It should be called How to Ruin a Mauser, as it would be difficult to devise a more certain process for destroying the accuracy of a gun. The emery cuts away the steel, acting most rapidly on the lands. As the emery is never equally distributed on the wiper, and, as it is impossible, by hand, to apply exactly the same amount of friction to every part of the barrel, the result is the production of irregularities in caliber and deformities of the lands. To the unaided eye the barrel looks clean and bright, but the gun will never shoot so well again, and a few repetitions of the cleaning process will completely spoil it. I know a 38-55 rifle which has been so much enlarged by a year's cleaning by a process like Mr. Dodson's, that the bullet now barely touches the lands, and the barrel is fit only for reboring. Never use anything rough, hard or gritty to clean the inside of a rifle barrel. If it needs polishing send it to the factory. If it is leaded clean it with mercury.

All smokeless powders leave the barrel coated with a thin, tough, varnish-like residue. The quantity varies somewhat with the brand of powder. This residue is acid, and, if not removed or neutralized promptly and completely, will surely cause the barrel to rust and become pitted.

To clean a gun use a cleaning rod, some soda solution, oil, gun grease, and clean cloths or their equivalent.

Cleaning rods for 30 or larger caliber rifles are best made of second growth hickory or lancewood. I prefer them with a head with square end and shoulder; the head about ¼ inch long and 1-16 inch less in diameter than the rifle caliber. The slotted wood rods break too easily. For rifles smaller than 30 the rod should be of brass. For home use the brass rod should be in one piece, but jointed rods are more convenient for field use. The latter must be handled with care or they will break at the joints. Brass rods are frequently made with a separable tip and a cylindrical brush to screw in its place. All brass rods should be set in a wooden handle, because if terminated in a ring, as is generally the case with one-piece rods, the rod is likely to strike and nick the edge of the rifling at the muzzle. Any injury to this edge makes bad shooting. Iron cleaning rods ought never to be used. Finally, the rod should always, if possible, be introduced at the breech, and never at the muzzle, on account of the danger of injuring the edge of the rifling at the muzzle. Bristle brushes serve a good purpose in larger caliber rifles using black powder, but are useless when smokeless powders are used. Wire brushes should never be used in rifles.

Cotton wool, tow, jute or any soft cloth may be used for wiping or oiling. I believe canton flannel the best all around cleaning medium. I buy bleached canton flannel, because it will absorb water more readily than the unbleached. I have it thoroughly washed and rinsed to remove any dressing it may contain. When it is thoroughly dry I cut it into squares of such size that one or more, when forced into the rifle with the rod, will make a snug fit. I find the fuzzy side next to the barrel does best work. Keep it stored in a box where it will remain free from dust.

Soda solution, for neutralizing and loosening the residue: Put one pound of sodium carbonate, or washing soda, into a pint bottle, then fill the bottle with rain water, and label it soda solution for cleansing gun barrels.

Have at hand plenty of good non-drying oil; vegetable oils must not be used. I prefer the best grade of machine lubricating oil, such as is used for oiling engines and machinery. It is a paraffin oil or a vaseline that remains fluid at ordinary temperatures. It never gets gummy, and, I think, prevents rust better than animal oils.

Mercurial ointment is useful for applying to inside of clean barrels to prevent rust. Vaseline is much used for that purpose but is no better than the lubricating oil mentioned above.

To clean a gun, take the proper sized cleaning rod, and after wetting one or more squares of canton flannel with the soda solution, and squeezing out the surplus, force repeatedly throughout the length of the barrel. When one square of cloth is soiled take a new one. After thus swabbing the barrel wipe it dry by means of the cleaning rod and dry squares of canton flannel. Then swab with another square saturated with oil. Repeat this until the cloths come out perfectly white after being used. Finish by swabbing with a clean cloth and some mercurial ointment. Use until every part of the inside of the barrel is coated with the ointment. Be careful not to get it on gold, silver, brass or copper articles, for the mercury will combine with those metals and the article will be

ruined. Finally, go over the outside of the barrel and all the metal parts of the gun with a lightly oiled soft clean cloth; place the gun in its case to keep off dust and store it in a cool, dry place.

A gun should be looked over and oiled lightly inside and out every few weeks in the close season, and thoroughly cleaned and oiled after each time it is used.

Water can be used instead of the soda solution, but it is not nearly so good. If water is used in a gun barrel, the barrel must be dried immediately and completely or it will rust badly. More than this, water will not soften the residue so quickly as the soda solution will. If the soda solution is used, little rusting would take place even if the barrel were permitted to dry without wiping. The soda solution neutralizes the acid in the residue left by smokeless powders, and thus immediately destroys the rusting and pitting action of that acid.

Take time to carry out each part of the work thoroughly, and the pleasure and satisfaction of using a perfect weapon will be your reward. H. S. Jewett, M. D.

IT IS UP TO PAGE.

Here is a letter from I. H. Page, President of the Stevens Arms & Tool Co., which will interest all readers of RECREATION. Thousands of my readers have written just as strong letters in expressing their opinions of RECREATION as the one which Mr. Page refers to.

It will interest my readers, therefore, to note that Mr. Page considers all such letters the result of bribery.

Chicopee Falls, Mass., May 20, 1901.
Mr. Chas. O'Byrne, Binghamton, N. Y.

Dear Sir—We have just received copy of a letter which you sent to J. H. McKibben, Secretary of the Peters Cartridge Co., in regard to advertising in RECREATION.

The tone of this letter seems familiar to us and, after reading what you had to say in regard to Stevens rifles, it leads us to suppose that Mr. Shields is paying you to write such articles. If such is the case, we must assure you that it is a poor business to be in. Unless we hear from you to the contrary we shall always believe you did not write that letter without being paid for it.

We enclose you herewith stamped envelope, and would like to have you advise us if this is not the case.

Very truly yours,
J. STEVENS ARMS & TOOL CO.,
I. H. Page. Prest. & Treas.

To which Mr. O'Byrne replies thus:

Binghamton, N. Y., May 22, 1901.
J. Stevens Arms & Tool Co.,
Chicopee Falls, Mass.

Dear Sirs—Your favor of 20th received. You certainly do me an injustice when you assume I received a consideration for writing the letter to Mr. J. H. McKibben, as the only solicitation for same is contained in the Editor's note on page 379 of May RECREATION.

I also think you wrong Mr. Shields, for while I think he would value honest expressions of opinion, my estimate of his character leads me to believe that he would not adopt the methods you suggest. I am not acquainted with him, he has never given or offered me anything, and let me assure you that such an offer would materially change my opinion of him. The letter was written in a spirit of justice, with the hope that Mr. McKibben would reconsider the matter, as I think he gave it very little previous thought.

I did not approve of the editor's caption of the troublesome article, nor did I intend to criticise the withdrawal of your ad., as at the present time I know nothing of your reasons for so doing. I merely cited the case to show the value of RECREATION as an advertising medium, and think it should receive the support of manufacturers of and dealers in sporting goods if the returns justify the outlay, which I presume they do; otherwise it would not exist.

RECREATION has made me a member of the L. A. S., as it has brought more forcibly to my mind the need of game protection. At the same time it has taught me to enjoy the use of a rifle more, and a week seldom passes that I do not use 25 to 100 cartridges on target practice, and would use many more did not my duties as engineer prevent it. I have never spoken except favorably in regard to your goods, and never shall without reason.

While I may not agree with all Mr. Shields' ideas, his earnestness commends him to my support, which he will always have as long as he continues his present course. Never before have I criticised the action of any person which did not directly concern me, but there have been times when a word might have done good. Hoping the difference between you and RECREATION is not so serious that it can not be satisfactorily adjusted, and with best wishes for the success of both, I remain,

Yours respectfully,
Chas. O'Byrne.

Mr. O'Byrne's letter to the Peters Cartridge Co., which Mr. Page claims was paid for, was published on page 214 of September RECREATION.

I printed on page 70 of July RECREATION an offer of $100 to any man who would prove that I had ever paid or offered to pay any man a penny for writing a letter commending RECREATION to any advertiser. As soon as that article was put in type I sent a copy of it to Mr. Page, and wrote

that it was up to him to either earn this $100 or to apologize to Mr. O'Byrne and me. Up to this writing he has not answered that letter. It would seem that the Stevens Arms Co. could scarcely afford to have a man at its head who would deliberately insult thousands of readers of RECREATION who have had occasion to speak well of it. I should not be surprised to hear of a change in the management of that company at an early date.—EDITOR.

HINTS TO PETERS.

Massillon, Ohio.

The Peters Cartridge Co., Cincinnati, O.:

Dear Sirs—It would seem to me, from what I have read of the difficulty between your concern and Mr. Shields, the editor of RECREATION, that there must be something behind your prompt withdrawal of your patronage from a journal that simply printed an honest criticism by a sportsman who wished others to have the benefit of his experience. If what that correspondent said in his note about your shells having too little rim for certain purposes is not true, why did you not simply write a note calling the editor's and the sportsmen's attention to the fact? If, on the other hand, it was true, would it not have been better for you to have said nothing? Of course it is no affair of mine, but I can't help feeling that your action was small. I have used many of your shells, and I don't say I shall discontinue using them; but I should certainly like you better if you would indulge in no more such unjust business.

Very truly yours, A. Demgeleisen.
Deputy Game Warden.

Woodstock, Ulster Co., N. Y.

Messrs. Peters Cartridge Co.,
Cincinnati, Ohio.

Dear Sirs—I can not help commenting on the attitude you are assuming against Mr. G. O. Shields and RECREATION. To say your action is childish is putting it mildly. I read the article you are crying over, but did not give it a passing thought, even though I have used a great many of your shells, until I received the May number of RECREATION, when my surprise was almost equal to my disgust at your action. Fortunately you are not the only shirt on the line, and I am inclined to think your competitors will get the benefit of your blunder. RECREATION will get the support of all true sportsmen, and that will shake all the plums off your best tree.

Yours truly, W. S. Mead.

Auburn, N. Y.

Messrs. Peters Cartridge Co.,
Cincinnati, Ohio:

Dear Sirs—I am surprised to read in RECREATION that you have withdrawn your ad from that valuable magazine. I am also sorry, as I used many of your goods during the year, and have always found them satisfactory; but I have my opinion of a company which will stop advertising in a paper because that paper prints a letter which is slightly unfavorable to them. In the first place, RECREATION'S great success lies chiefly in the letters which go to make up the gun and ammunition department; so I think it unjust to withdraw for the simple reason of one letter being printed unfavorable to your goods. Hereafter Winchester and Union Metallic goods will fill my bill.

Yours, D. S. Titus, Jr.

TELESCOPE SIGHTS.

In March RECREATION I read with interest the article entitled "The Mogg Telescope Sight," by W. D. Gruet, Hartford, Conn. Being one of those who find pleasure in the use of telescope sights, I venture a few comments.

I wish to compliment Mr. Gruet on his skill as a rifle shot, and to congratulate him on the possession of such a marvelous glass. I sincerely hope nothing may injure it, for where will he find its equal?

He says: "Hiding in a bit of timber an hour before daybreak I watched for squirrels. I thought I detected the motion of a squirrel's tail in a leaf nest in the top of a tall tree, about 85 yards distant. . . . I could see him plainly through the 'scope, and placing the cross-hairs on the middle of his neck, I pulled the trigger and down he came. I found I had hit just where I had held."

A truly marvelous shot!

He continues: "A few moments later I saw an object on a limb about 40 yards distant, which, in the darkness, I took to be a small owl. But, looking through the 'scope, I saw it was a large, fat squirrel."

That one, also, falls, shot through the head.

Two other squirrels fall at 75 yards, making 4 shot through head or neck in the gray, uncertain light of early morning and under conditions most trying to the best rifle 'scope on earth.

Though not so stated, I assume this was offhand work. If so, compare with Mr. Britt's score on preceding page of same number.

Mr. G. makes invidious comparison between the Malcolm and Mogg glasses. This is uncalled for. Both makers have been long before the shooting fraternity as manufacturers of fine telescopes, and hundreds of their glasses in the hands of shooters tell what a hunting or target scope can do.

Wm. H. May, M.D., Syracuse, N. Y.

CLOSE SHOOTERS.

I notice G. A. Mero, Becker, Minn., wants information about shot guns, so I submit my personal experience. I have owned for 5 years a Baker hammerless gun, 10 gauge, 32 inch barrels, weight 10 pounds, and find it all right in every way. I shoot 5 drams DuPont powder and 1 1-3 ounces shot, usually No. 8, as I find it certain death under 50 yards. I never shoot anything larger than 6's except for extremely long range, say 100 yards and upwards, when I use No. 1's. I think most people shoot too big shot, for I can kill ducks at 50 to 60 yards with No. 8's. I have also used Ithaca guns many years and can recommend them as fine weapons and good shooters. I should like to see more about duck hunting and something from this part of the country.

T. A. Morgan, Morgantown, W. Va.

G. A. Mero, Becker, Minn., says his Remington does not shoot close enough to suit him. He must have a cylinder bore or his gun is too closely choked, or he has not used the right load. I have a Remington ejector 12 gauge, 7¼ pound, full choke, that at 45 yards with 3½ drams smokeless powder and 1⅛ ounces No. 5 shot, placed 9 pellets in a space 3x5 inches. I thought at first that my gun did not shoot coarse shot well, but found it depended on the loading.

L. Shannon, Chipley, Fla.

If G. E. Mero wants a close, hard shooting gun I advise him to try a Syracuse. I have owned one 3 years. For close, hard shooting it beats any other gun I ever shot, and I have used many that cost several times as much as my Syracuse. I can not speak too highly of it or of its manufacturers. D. J. Kelly, Baldwinsville, N. Y.

ANOTHER MARLIN CLOG.

In the December number of RECREATION I find on page 459 a statement about the Marlin rifle. Will you kindly allow me to say that Mr. Burk and others speak my sentiments regarding the Marlin? Two years ago I was up at Enchanted pond, in Somerset county, near the Kennebec Forks. I had only a Winchester shot gun with me, and wishing to get some large game I hired a Marlin rifle. It was a 40-60 model. I bought shells and started with a guide to have a good 2 weeks' hunt. We went 22 miles from Mr. Murphy's hotel, and on the third day out we got sight of a fine buck. My guide was on a hill about ¾ of a mile from me when I fired the first shot. I hit the deer in the shoulder and he came right toward me. I tried to get another shell in the gun, and could not do it. The carrier threw a cartridge up in the carrier spring and there I was. The buck went by within 75 feet of me, but I was helpless, 20 odd miles from any house or place where I could get a gun. Of course, my guide loaned me his Winchester, which I used with good results.

When we came out of the woods and got to Mr. Murphy's hotel I saw 4 other Marlins, all hung up. I told of my trouble with the Marlin, and the owners of those rifles said that all those guns needed repairing. They more than condemned the Marlin rifles, and asked me to send them some Winchesters.

I have used a Winchester, 38-50, with good results. I think of trying the Savage another season if they are all right, but I would not carry a Marlin 5 rods. I have hunted and trapped more than 27 years, and the Marlin repeaters are the poorest I ever used.

I am glad to see RECREATION come out so strong against fish and game hogs. Keep right after them.

Geo. H. Rock, New Auburn, Me.

THE 22 AND THE 22 SPECIAL.

Reading a recent number of RECREATION, I noticed that F. S. Rose desires to know how the 22-7-45 cartridge compares with the 22 long rifle. Being somewhat familiar with both cartridges I venture a reply.

I am now using a 22-7-45 Winchester repeater, which I have had nearly 2 years. Before buying it I had never used anything except the regular 22's. It is difficult to draw a comparison between those 2 most excellent cartridges. In the 3 essential features—accuracy, penetration, and trajectory—they are much alike. All shooters know, however, that the 22 long rifle can not be beaten at ranges from 100 feet up to 100 yards; but the 22-7-45 can be depended on to go where it is held every time. The flat point of the 22 special gives it less penetration than it otherwise would have, and makes it almost identical with the 22 long rifle. In my experience I have not found much difference in trajectory, the advantage, if any, being with the 22-7-45.

The one great point in which the 22-7-45 excels the 22 long rifle is its superiority as a hunting cartridge. Its extra weight and flat point give a much greater smashing effect, while there is nothing lost in the other essentials that combine to make a perfect cartridge. If I wanted a rifle for target use only, I should prefer the 22 long rifle; if I wanted it for hunting, the 22 special would suit me best.

Edw. McGaffick, Winona, O.

THE PROOF OF THE PUDDING.

Although "Ivory Bead" forgot to sign his little proposition in January RECREATION, I am willing to take him up. I will cover all the money he cares to wager that I can make as good a target with my

25-35 as he can with either a 45-70 or a 45-90. Moreover, I will bet 2 to one that I can shoot deeper into any substance with a 25-35, 25-36, 30-30 or 30-40 than he can with any 45. It is strange how much trouble the black powder fossils take to convince themselves that their old cannon will outshoot the smokeless powder rifles. All hunters know that when using soft lead the swifter the bullet travels after passing the 1,200 feet a second mark the less its penetration in wood. They also know that the gun that lets the bullet stop in the animal gives a greater shock than the one that drives the ball clear through. "Ivory Bead" is wrong in saying that no smokeless bullet will mushroom at 1,000 yards. A 25-35 soft point, fired into wood at that distance, will expand to 3 or 4 times its original size. Money talks, and we will finish this little argument at our shooting match.

M. P. Dunham, Ovando, Mont.

WINCHESTER NEVER BALKS.

Having used rifles continually for the past 12 years I venture to give my experience. I have used the Winchester 32-20, 38-55, 40-82, 44-40, 45-60, 45-70, 45-75 and 45-90; Colts 40-82 and 22 long; Marlin 38-55, 40-82 and 45-70; Remington, 45-70; Sharps 45-70, 40-90 and 45-110; Springfield 45-70; Stevens 22 long rifle. I have never owned a Marlin that worked perfectly. With Colt's Lightning my experience has been the same. I have yet to see the first balk in a Winchester. I have used them from Maine to California and Florida, and my choice for large game is the 38-55 mushroom ball, smokeless Winchester. I like the 22 caliber Stevens Expert No. 1 for small game, such as rabbits, grouse, ducks, etc., much better than any other small bore, on account of the weight and hard shooting. I do not like the 30-30, .303 or 30-40. They are more powerful than necessary, for with the soft nose 38-55 I can stop any animal the others will, as the majority of kills are made on the short side of 200 yards.

W. H. Long, Walden, Colo.

SOME MAUSERS SATISFACTORY.

I should like to hear from someone who knows about the shooting qualities, accuracy, balance and general fitness of Lee straight pull rifle, 6 m-m., as a game gun.

Will say to Harry D. Frogg that a Mauser in good condition is as good shooting a gun as any man could ask for. A second-hand Mauser, such as are sold in this country, may be an uncertain quantity as to accuracy.

Lou McFarland, of Coalingo, has a gun that pleases him greatly, but he must not think because he once dynamited a deer with it that he can do so always. The next time his friend's Savoy may prove the better gun.

Three seasons ago, while hunting on the divide West of Joaquin Rocks, I shot a buck with a Winchester single shot 32-40 not less than 200 yards distant. The shot broke a hind leg below the knee, entered the center of belly, passed through heart, and lodged in bone of neck, but I am never going to do the same thing again.

Dave O'Daugherty, Huron, Cal.

SMALL SHOT.

K. C. G., in January RECREATION says he is about to buy a belt revolver, but is unable to decide on the caliber, and thinks a 45 too smashing for grouse and the like. I think so, too. I advise him to get a 6 shooter, chambered for 10 gauge shells. Then he could use shot for birds; they think it more sportsmanlike. For moose or Indians he could use armor-piercing projectiles or lyddite shells. He asks about using balls in a shot gun, and about increasing the shooting power of the 45-70. Yes, K. C. G., you can use balls in a shot gun; in fact, that is what a shot gun is built for. Always use bullets in a shot gun and shot in a rifle. Grease the bullets and wrap them in a gunny sack or an old flannel shirt. With 5 to 10 drams of good powder they will kill any grizzly that will let you put the gun in his ear. Load your 45-70 shells with about 4 fingers of nitro-glycerine and ram hard. The result will surprise you. W. K. Boyd, La Junta, Cal.

I have been using a 16 gauge hammerless Syracuse gun, cheapest grade, for 2 years, and it has been a source of great pleasure to me. It has never failed to score when held right. I am not even an average trap shooter, but have taken 20 out of 25 Blue Rocks at the same distance as 12 gauge. At the trap I use 2¾ nitro and 1 ounce 7½. This is a special load. In the field at all kinds of game I use 3 drams black powder and ⅞ ounce of No. 1 shot. Have dropped a good many grouse, woodcock, chickens, rabbits, etc., at 40 to 55 yards. The ordinary factory loaded shells do not shoot well in the Syracuse 16. There is too much recoil and too little penetration. I can not recommend my field load to the pot hunter, but it anyone wants good, clean sport and the satisfaction that comes from skillfully handling a good reliable gun, let him use a Syracuse 16 with my load. F. C. King, Marshall, Wis.

A correspondent in March RECREATION asks how it is that .303 British cartridges are sold in Canada at $1.50 per 100, when they cost so much more in the States.

The answer is this: The government issues them to the rifle associations at a

low rate. One must belong to these organizations to get them, and they are supposed to be used only at the range. Moreover, we are able to get only full mantled bullets, which, even when notched with a file, are almost useless for sporting purposes. It is said to be against the law to use them off the range in time of peace. Soft-nosed cartridges must be bought at the stores, and cost even more than in the United States. Those of Canadian and English make are loaded with cordite; the half mantled are of American manufacture, and are, I believe, loaded with high grade smokeless. Cordite is, of course, a smokeless powder.

F. A. Good, Woodstock, N. B.

Would cutting 4 inches off the muzzle of a double barrel, 10 gauge, modified choke bore shot gun cause it to spread too much? It is chiefly used in brush with No. 6 shot, and occasionally No. 4 for ducks. It has 32-inch barrels. P. H. McKay,

Spafford, N. Y.

ANSWER.

It is never safe to change a gun or rifle from the model adopted by the maker. He adapts the choke to the length of barrels, gauge, etc., and chambers the gun for certain kinds of work. If you should cut off the muzzle of your gun it would not only cause the shot to spread much more than you would wish, but it would disturb the plan as to the burning of the charge of powder, range, penetration, etc. If the gun is not satisfactory in its present shape you would better sell it and buy a new one of the proper length.—EDITOR.

Before you choose a new gun examine one of the higher grade, recently improved Ithacas. With the new reinforced frame, the new double-thick breech, the new stock fastening and the improved skeleton rib the Ithaca people have an arm not only beautiful but with shooting and wearing qualities beyond dispute. I have had experience with guns of high and low degree, have fired many thousand shots, and I honestly believe no other sporting arm, English or American, can surpass the highest grade Ithaca. If you want a cheap arm that is a perfect shooter, and desire it for rough and tumble service only, get a low grade Ithaca. If you want a perfect poem in steel and wood, and one that can stand the rough and tumble part, too, get a high grade Ithaca.

Wm. M. Byram, M.D., Richmond, Mo.

I know of no shot gun that will outshoot or outwear a Remington. There are other good guns, but none I would rather have at anything like the price. I have owned 2 Remingtons of different styles, have known many others, and can testify to their merits. Their joints are perfect and they stay that way. Just now I have a small 16-gauge, semi-hammerless Remington, which answers my every purpose. It is a shooter of the first order, and exceedingly handy when the hunter is in a hurry to shoot. I use with it a Barger sight, which has much improved my skill in shooting. I love to hunt game and shoot it in moderate quantities; when I feel like burning more powder, I find some kind of inanimate target. That affords practice and keeps my conscience easy.

C. A. Ross, Rock Falls, Ill.

In July RECREATION I noticed a letter by James Colton, Normal, Ill., in which he condemns Peters 22 cartridges. He says they will not shoot far, and that they miss fire once in 5 shots.

I have a Stevens Favorite, with Lyman front and rear sights, and shoot Peters semi-smokeless cartridges altogether. Recently I got a box of Peters shells and killed 29 sparrows out of 43 shots. I never knew a cartridge of that make to miss fire.

I like them because they do not dirty my gun so much as black powder shells, and because they shoot harder.

I have owned a rifle 5 years, and think the Stevens Favorite as fine a little gun for the money as any made.

Wilfred Eakin, New Castle, Pa.

We notice an inquiry in August RECREATION, from W. A. B., asking whether a 26 inch 12 bore gun will shoot as far and as close as a 28 inch of same bore. Our long experience in building guns has taught us that 26 inch guns, as a rule, will not make so close a pattern as a longer gun. With black powder the penetration is not so good with a short gun, but with any of the popular brands of nitro powder a 26 inch gun will have as much penetration as a 28 inch, and the difference in pattern will not be more than 10 per cent. We have noticed a great demand this season and last for 26 inch barrels, especially among the quail shooters of the South and the grouse hunters of New England. Ithaca Gun Co.,

Ithaca, N. Y.

Please tell me where I can obtain extra parts for the semi-hammerless, single barrel shot gun made by the American Arms Co., of Boston, Mass.

Vern Smith, Grayville, Ill.

William Read & Sons, 107 Washington Street, Boston, are agents for the gun you name. Write and tell them what you want, and they will quote you prices.—EDITOR.

I have been experimenting with low pressure loads in a 30-30 rifle, and have ob-

tained good results. For medium loads I like DuPont No. 1 smokeless rifle powder. It is cheap, clean and does not injure the gun barrel. Can as much be said of Du Pont 30 caliber powder? Do copper cased bullets wear a barrel rapidly? Please answer through RECREATION.

J. N. Nichols, Bass River, Mich.

I see Jay Bee says the 45-90 shoots like a bell muzzled gun. I have one, and certainly can not agree with him. It will outshoot the 45 Martini at 300 yards, and considering the much lighter bullet this is a most creditable performance.

W. T. Adams,
Howick Station, Natal, Africa.

I advise J. F. Wilburn to buy a 22 caliber rifle, chambered for the long rifle shell. While it has not so long a range as the 25-25, it is more accurate and is plenty large enough for game up to raccoons. It is also much cheaper, which is a point worth considering if one does much target shooting.

L. Arthur, Point Pleasant, W. Va.

I would say to J. D. Soulsbery that I have used the 25-20 Winchester and found it a good gun for game up to antelope. Am now using a 32-40. It does good work on deer, elk and antelope. I should like to hear from someone using the 32-20 single action revolver, with 7½ inch barrel.

H. L. Andrews, Jackson, Wyo.

I have a 30-30. It is a good gun; but a 30-40 is the gun for me. The Savage Arms Co. claims its gun will penetrate 50 inches of pine. That would be equal to about 58 ⅞ inch boards. In the Winchester table the penetration is given as 33 ⅞ inch boards. Which is right?

R. M. C., Red Lodge, Mont.

I, also, can assure Wm. Blake that the Remington hammerless gun will not shoot loose. I have used a 12 gauge, 28 inch barrel Remington hammerless 7 years. It has seen much service, yet is as tight as when I bought it.

W. W. Wilson,
Washington Depot, Conn.

If C. I. O. C., St. Joseph, Mo., will give me a little time I shall be able to tell him something about the 22-15-60 S. S. Herrick rifle, 26 inch barrel. When I have given it a fair trial I will report, stating straight facts as I find them.

Capt. Geo. Scott, Oak, Cal.

Will some sportsman please tell me how to load, to secure best results, an old-fashioned army revolver, using percussion caps? Is it necessary to use wads between the powder and bullet and over the bullet? The caliber is 44.

Repeater, Jamestown, N. Y.

I should like to hear from someone who has used the Stevens Ideal No. 44 rifle. Is it a good gun and what is its range with the 32 rim fire cartridge? Will it do good work with the 32 long R. F. at 300 yards?

W. S. Mead, Woodstock, N. Y.

I should like to know whether there is a difference in velocity, penetration, and trajectory between the 38-55 black powder cartridge and the smokeless of the same caliber? Are they equal in accuracy?

F. S. Onderdonk, Mexico City, Mex.

The U. M. C. Challenge shell seems to be made of harder paper than any shell I have ever used, and works one quarter faster in a repeater, which counts considerably at certain periods of a duck hunt.

C. A. R., Bloomfield, Ont.

Should like to hear through RECREATION from sportsmen using 20 and 28 gauge guns. Please state kind of game hunted, make of gun and load used.

E. C. Statler, Grand Island, Neb.

Tell L. A. S. 2239, that soft point bullets for the Lee rifle are made by the U. M. C. Co. Tell Mr. Thompson the H. H. Kiffe Co. makes shot spreaders.

38-72, Batavia, N. Y.

I find the Gun Department of RECREATION interesting and profitable. I have learned several valuable facts from it.

S. A. Nash, Brookline, Mass.

Please tell me whether any of the makers who advertise in RECREATION make a 28 gauge shot gun?

T. L. N., Emporia, Kan.

Will some reader who has used a 20 bore gun at the traps tell me what load he found most satisfactory?

G. C. G., Indian Head, N. W. T.

I should like you or some subscriber to tell me of the shooting qualities of the Remington hammerless shot gun.

C. A. M., Newark, N. J.

I should like to hear from users of the 25-20 what they think of it as a target and hunting rifle.

A. J. Lang, Rondout, N. Y.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

DO GROUSE DRINK?

Mr. Rice's interesting article in RECREATION calls to my mind many pleasant hours I have spent in the woods of New York and Pennsylvania trying to discover how grouse drink.

One warm August afternoon in 1875 I was sitting beside a little spring run in a piece of second growth timber. Presently 2 cocks and a hen grouse with her brood of 7 chicks stole out from cover. They wandered along the little stream, frequently crossing and recrossing it in plain view. I have always been interested in noting the habits of these birds, and the fact of their being so near the cool water caused me to watch them. They remained within sight more than an hour, and not one of them drank during that time. Since then I have had many chances to observe grouse closely, and have yet to see one drink from a brook or pool. I have, however, seen them pick at dew and rain drops on small twigs, ferns and leaves.

I fear I was something of a pot hunter in my youth, but have outgrown that, and have shot only one grouse in the last 25 years. Most of my leisure for 20 years has been spent in the woods and fields, studying nature to the best of my ability. I could give many facts that would, I think, be of interest to the lover of birds at least.

W. J. W., Wellsville, N. Y.

I notice in the October number of RECREATION an article headed, "Do Grouse Drink?" by A. F. Rice. Many old sportsmen will say, "Of course they do; because don't they always follow streams in dry weather?" But how few, if any, can say they have ever seen a grouse drink? I have never but once seen any of the grouse family in captivity. That was a young prairie chicken, or pinnated grouse, caught when only about a week old. For a few days it looked as if it would die. It would not drink. Finally one day during a rain storm the grouse was noticed catching drops of water that were dripping in its cage. Acting on that theory, a small bunch of green grass was tied in one corner of the cage, a little water poured into it and allowed to follow down through and drip from the ends of the grass, when presto! the grouse had a drink. After that, as long as he lived, he drank in no other way. This may not be the only way a grouse will take water, but I am inclined to think it the natural way, and only in dry weather or when lacking dew would they drink any other way.

M. H. Douglas, Abbotsford, Wis.

In November RECREATION Mr. Rice asks whether grouse drink in the manner of other fowls, giving his reasons for thinking they do not; but in the case he mentions he does not name the species of grouse referred to, on which, in my opinion, the whole case turns. Possibly the following from "Wilson's American Ornithology," Vol. I., pages 402-3, may be of interest to him: "A person living near Nashville caught an old hen pinnated grouse and kept her in a large cage. He remarked that she never drank, and even avoided the part of the cage where the water pan stood. Happening one day to let some water fall on the cage, it trickled down the bars in drops, which the bird no sooner observed than she eagerly picked them off drop by drop with a dexterity that showed she had been habituated to this mode of quenching her thirst." In the case of pinnated grouse this peculiar way of drinking is not so remarkable as it appears at first sight, since on the natural range of the species there is little water to be found except raindrops and dew.

E. P. Venable, Vernon, B. C.

Mr. Rice asks whether grouse drink like domestic fowls. They do; in some instances, at least. Last fall my brother caught a pinnated grouse. During the 3 weeks it lived in captivity we had every opportunity for observing its habits. We clipped one wing and let the bird have the range of the house. It never seemed in the least afraid, and if disturbed would scold and fly at the offender. When interested or startled it would cackle much as hens do, though not so loudly. It ate wheat and bread crumbs and drank water exactly as a hen would. It was finally given the liberty of the yard, where its first act was to drink from a puddle. While on parole, as it were, the poor bird was killed by a cat.

L. A. R., Hawley, Minn.

Some years ago our dog killed a grouse on her nest. My father took the 11 eggs which the nest contained and put them under a bantam hen. All hatched on the 23d day, and the chicks were running about within an hour after leaving the shell. They would pick food from a dish or from the ground, but would not drink water from a pan. They were noticed picking drops of water off the grass where it had

splashed when the pan was filled. As long as they were kept they were not seen to drink in any other way.

E. H. Cahoon, Akron, O.

Of course the grouse drinks water; otherwise it would be an exception to all physiological law. Just how it does so is another question. I am inclined to think it drinks like the domestic hen; though doubtless in seasons of drouth, or when far from any other source of supply, it can obtain sufficient water by picking dewdrops from leaves and grass. Mr. Rice's letter is exceedingly interesting and should incite every true sportsman to a closer study of bird and animal life.

Dr. W. D. Sigler, E. Palestine, O.

FACTS ABOUT THE EEL.

The method of reproduction of the eel has long been a mystery to the popular mind, and all sorts of absurd views have been held by the unscientific. It has been claimed that eels are generated from the mud or slime in the bottom of streams or bays. Even as late as last year a well known paper published with apparent approval a stupid article by a writer who claimed to have demonstrated beyond the possibility of a doubt that all so-called "common eels" are males, and that the lamprey eel is the female.

The article by Mr. Haskins in June, 1901, RECREATION stated clearly a number of important facts in the life history of the eel. On the other hand, the article by Mr. Wixson in November RECREATION, and the letter of a more recent correspondent, would indicate that the respective writers are not familiar with what is really known regarding the eel.

The spawning habits of the eel have been well understood by naturalists for many years. The essential facts were demonstrated by Sancassini as early as the 18th century. Since then various investigators, including Mordini, Syrnski, Jacoby, Grassi, Calandruc, and others have verified or added to those experiments, until we now know as much about the method of reproduction of the eel as we do regarding that of the majority of our fishes. There is a vast amount of literature on the subject, readily available for anyone who cares to go into the matter. The essential facts can be stated briefly.

Eels, like all other fishes, are of 2 sexes. The females are usually larger than the males, paler in color, with smaller eyes and higher fins. Both are found in fresh-water streams, and both run down stream to salt water when the spawning season approaches, which is in the fall. The eggs of the female eel are almost microscopically small and exceedingly numerous. They are usually deposited in salt-water bays and inlets, though they may, under unusual circumstances, be laid in fresh water. After extrusion from the body of the female the eggs are fertilized by the male.

After the eggs hatch, the young eels remain some time in salt water, and then ascend fresh-water streams, in many cases for long distances, where they remain until mature and ready to spawn. It is believed that both sexes, like the West coast salmon, die after once spawning, but this has not been proved.

The mystery regarding the spawning habits of the eel was due chiefly to the difficulty of distinguishing the eggs, owing to their extreme smallness and to a failure to find young eels in fresh waters, where adults could be found at all times. Eels often move considerable distances on land in wet weeds or grass, often passing around waterfalls, dams and other obstructions in this way.

They are among the most voracious of fishes. "On their hunting excursions they overturn alike huge and small stones, beneath which they find shrimps and crawfish, of which they are fond. Their noses are poked into every imaginable hole in their search for food, to the terror of innumerable small fishes."

B. W. Evermann.

In November RECREATION Mr. Wixson denies that eels migrate. I think they go to salt water if they can get there. That they go to breed, I am not so sure, for young eels can be found here at any time. The machinery of a factory in which I am interested is driven by a turbine wheel of 18 horse power. The fall is 18 feet from top of dam to wheel. Between the first and the middle of November eels begin to run down the pipe that feeds the wheel. If there comes a cold rain they run in such numbers, as to stop the wheel,,and we have to go into the wheel pit and pull them out 2 or 3 times a day. The run continues 2 or 3 days, and then is over for the season.

Our dam is 125 feet wide; the wall is 10 feet high and perpendicular. In the spring I have seen the entire face of the dam fairly alive with eels trying to get back to the pond. I have watched them struggling to get up when there was barely enough water running over to keep the face of the dam wet, and have seen them succeed in reaching the top.

Eels will go in the night from one pond to another, crawling in damp grass. If Mr. Wixson doubts this let him some night put some living eels in the grass 20 rods or so from the pond where they were caught. He will be surprised to see how quickly they will reach the water, and how direct a course they will take. When eels are observed gathering in bunches they are, I think, getting ready to go down stream.

I have heard that no one ever saw the spawn of an eel. A fisherman whom I have known for years has promised to obtain some eel spawn, and I will send it to you in alcohol. My friend says that with a microscope the eggs can be plainly seen. I hope you will find someone to examine what I shall send you, and so settle the question.

S. W. Shailer, Ivoryton, Ct.

"WHAT WAS IT?"

Beaver Falls, Pa.

Editor RECREATION:

A year ago last fall, while fishing for bass in Little Beaver creek, a small stream near the Ohio State line, and therefore keeping as quiet as is possible under the annoyance of swarms of zealous mosquitos, my attention was drawn to a peculiar sound, which at first seemed to be the tapping or pecking of some small bird of the woodpecker species on a tree a short distance away. Listening intently, I decided that the sound was too dead, or muffled, and was neither frequent nor regular enough to be made by such a bird. From where I was sitting, on the bank, it was difficult to determine the location of the peculiar noise, and it was some time before I partially satisfied myself that it was caused either by a movement of entangled branches in the dense clump of woods to the left a short distance, or by the swinging of some of the thick undergrowth against a barbed wire fence that cut through the woods. There was not the slightest breeze stirring the leaves on the trees, which was puzzling. Then I noticed more particularly a small tree a short distance down the creek whose roots had been gradually undermined by the current, until it had slipped over, leaving its full leaved top lying in the stream, but nearly all out of water by reason of the shallowness of the creek at that point. This tree had fallen in such a way as to leave its roots intact, for it was not only growing but apparently thriving in that position. Against the branches where they touched the water was drifted a small quantity of old bark, short sticks, roots, rotten wood, etc., held together by a mass of dirty foam from a ripple just above. I finally concluded that the questionable tapping came from the dense foliage of this fallen tree where it lay against the water. I cast a stone therein and several small birds flew out. Then silence came. I thought those birds had something to do with the noise; but I went home still puzzled.

Last September, in company with my brother, who claims to know something of animals and birds and their habits, I again went after bass in the same place, on the same kind of a good hot day. We had scarcely cast our lines when we heard the same tapping noise that had mystified me a year before. Believing it came from the same recumbent tree, which the past year's freshets had left undisturbed, I set my rod and moved up by the tangled roots, determined, if possible, to discover its cause. I sat a long time. A few of the same small birds darted in and out of the branches, and a poor little field mouse, with a mouthful of something, poked its head out from a clump of matted leaves on the water to see if the coast was clear and then ran rapidly up the trunk over the roots and disappeared in a hole in the bank. I thought perhaps that was a solution, but the noise soon continued. Shortly afterward, by the interruption of the glancing rays of the sun where they fell on a small patch of the above mentioned drift in an opening among the leaves and were reflected to my face, I noticed that the *debris* had been slightly disturbed. That was a clue, and on further careful observation I saw that the tapping always accompanied a slight disturbance of some part of the drift. I do not know any clearer way to explain the nature of the sound and the quality of disturbance than to say it seemed as if some strong billed bird was underneath in the water and pecking upward at the various small pieces of driftwood, or bark. I called my brother's attention to it and asked him what was causing it, but he gave it up, after suggesting it might be muskrats, for it happened sometimes simultaneously, at several different places in the *debris*, but always accompanied by the inevitable tapping and the slight lifting of the small piece of wood disturbed a little upward in the water. I will be grateful if you can inform me what animal was causing the disturbance and sound described, if it was feeding, etc.

T. F. Covert.

Can any reader of RECREATION explain? —EDITOR.

COON CHATTER.

I notice an article written by F. W. Allard, Atlanta, Ga., who claims that coons make no noise, He is entirely mistaken. A coon makes a great deal of noise and can be heard on a still night in the fall almost a mile. Their call is hard to describe, but it is shrill and quivering, and in timber or a cornfield is hard to locate. I remember at one time, when a boy, having a pet coon, caught when quite young, the mother having been killed a few days before. In a few weeks after being captured cooney had the run of the farm, and during the time she remained with us never took an egg or killed a chicken, although for mischief I never saw anything equal her. Several

times in the fall I took her miles in the woods. She would follow me anywhere like a dog. I would try to leave her and get back home; but every time she would come humping along a little later. In November she hibernated under a beam in a hay mow, and would only show herself a little on mild days, eat a little and go back. In March we had a warm rain, and she left never to come back, although she came back in August with a family, which she raised close to the farm. She was so tame that she would bring them almost to the house at night, and could often be seen. Talk about calls or noises! You could hear all you wanted without having any owls mixed in. Later in the fall the family fell the victim of coon dogs.

I consider RECREATION the best magazine in the States, and will guarantee it will cure any game hog if he will read it one year. When I first took the office here there was not a copy coming here. Now there are several, and thanks to Dr. G. B. Johnston, they are still increasing. Doc. is a hustler for new subscribers, and can dissect a game hog so he would never root any more. They would better keep away from him.

M. H. Douglas, Abbotsford, Wis.

I have had several coons as pets. One, a youngster, became friendly with a neighbor's pup. The coon was kept chained to an iron pin, and the dog came to play with him several times a day. When the pup wandered away the coon made a noise as if to call him back.

Last spring I caught 3 chipmunks and put them in a cage. I had heard that these animals do not take kindly to captivity, but 2 of mine became exceedingly tame. While they were busy putting away their winter's supply of food, one killed the other 2. Now he is alone, storing all the food he can get into a box.

George Ross, Carrollton, Ill.

I was much interested in F. W. Collard's article entitled "Do Coons Chatter?" Whatever they may do in Georgia, raccoons certainly chatter in Ohio, both at large and in captivity. While uttering the cry they usually stand on their hind feet and rub their forepaws together. There is no question in this region of confounding the coon's call with that of the red screech owl. In 50 years spent here I have never seen one of those owls. We have the grey screech owl, but its cry is unmistakable.

S. W. Riggs, Sullivan, O.

In November RECREATION I read what was said about coons making a noise. They have a fuller, deeper note than a screech owl, and it can be heard farther. It does not seem loud when heard close by, but the sound carries a long distance. I was in the middle of a city one summer night and heard a coon's cry. I spoke of it, and a friend said, "There is a pet coon about 2 blocks from here."

M., Princeton, Ill.

SNAKE TALK.

I have read with much interest the discussion in RECREATION as to how rattlesnakes reproduce their young, and I should like to hear from someone who knows what he is talking about as to the height a full grown rattler can strike, and what thickness of clothing, boots or shoes would resist a strike of its fangs. A miner who had prospected in Arizona 7 years, and whose word I never had any occasion to doubt, told me that once while he was sitting beside a trail in that country he saw 2 roadrunners approaching. Suddenly they stopped, their attention seeming to be drawn by some object on the sand before them. After holding their heads together a few seconds, as if debating what to do, they separated and began to gather pieces of cactus, which they placed in a circle around the object of their attention, a sleeping rattlesnake. After completing the circle they ran a short distance away and began to chatter in a noisy manner, to awaken the reptile. Hearing the noise, the snake made a start to get out, to learn the cause. Finding his way barred by cactus he turned to go in another direction, only to find the same thing. After going from one side to another and finding no exit he became mad, and turning struck his fangs into his own body. The birds, which were watching with great interest, and which seemed not to notice the miner, waited until the snake had made his last struggle. Then they entered the circle, dragged out the body and inspected it, turning it over first one way and then another, all the time chattering at a great rate to each other. After satisfying themselves they proceeded on their way.

Geo. R. Dunahoo, Los Angeles, Cal.

ANSWER.

The height a rattler can strike depends altogether on the size of the snake. A reptile 4 feet long could, if he tried, strike a point 2 feet above the ground; but they do not usually try to strike very high. A boot or a legging that would come just above the knee would probably be safe in all cases. EDITOR.

I have taken much interest in the snake stories in RECREATION. Several years ago, while walking with friends along a country road in Franklin county, N. Y., a greenish snake 2 or 3 feet long was encountered. To our astonishment it opened its mouth wide, while into it rapidly disappeared 8 or 10 young snakes 3 to 4 inches long. The reptile was killed. When it was lifted

by the tail, out of its mouth slid the young snakes, one by one. While not a snake-ologist, I am sure the snake belonged to a species common in that region.

Chas. E. Hutchinson, Los Angeles, Cal.

YOUNG BIRDS AND MAMMALS AT THE NEW YORK ZOO.

Thus far for the present year the record of births in the Park is very gratifying. In the Bird Department, Mr. Beebe has been very successful in all his breeding operations, particularly with the pheasants in the Schieffelin collection, and his work will be reported on in detail in the next number of the Bulletin.

Notwithstanding that continual blasting and building disturbed the birds frequently, 20 species in the Park nested and laid eggs, and of these the 12 following have successfully hatched and reared their young:

Golden Pheasant, Silver Pheasant, Reeves' Pheasant, Lady Amherst Pheasant, East Indian Black Duck, Ring Dove, Canada Goose, Mallard Duck, Wild Turkey, European Herring Gull, Jungle Fowl, California Partridge.

Other species are incubating, and this list will be considerably extended.

In addition to the above, Mr. Beebe has collected, and is now rearing, an interesting collection of nestlings, representing the following species:

Kingfisher, Catbird, Screech Owl, Meadowlark, Baltimore Oriole, Cowbird, Flicker, Robin, American Magpie, Crow, Song Sparrow, Rose-breasted Grosbeak, Red-winged Blackbird, Black Crowned Night Heron, Yellow Crowned Night Heron, Green Heron.

Naturally these young birds attract much attention from visitors, to whom they are much more of a novelty than adult birds.

To meet their ever-growing demands they require to be fed every hour, save at night.

Amongst the mammals, the most important births up to date are the following:

1 Buffalo (female), 1 Fallow Deer, 3 Elk, 2 Axis Deer, 5 White-tailed Deer, 6 Coyotes.

Other Buffalo calves are expected, and in reality are now overdue. The Mule Deer, Black-tailed Deer and Prong-horned Antelope are yet too young to breed.—News Bulletin of the Zoo Society.

HOW TO KEEP BEAVERS.

Will you please tell me how I may keep beavers? I live near a small river. What do they eat and do they require deep water? C. F. Derly, Cranford, N. J.

ANSWER.

Beavers require an enclosure consisting of an iron fence standing on a stone wall, which goes into the ground about 2 feet. The fence may be made of wire netting, provided the wire is sufficiently heavy so the beavers can not break holes through it, as they can easily do through ordinary light netting. The wire should be about No. 12. The top of the fence must overhang on the inside in such a manner that the beavers can not climb out. In the Zoological Park the beaver fence is made of iron rods ⅜ of an inch in diameter and 2 inches apart, which curve over at the top 16 inches in a half circle. This fence is rather expensive, however, and a cheaper one can be made of wire.

Beavers require plenty of small trees and brush with which to build their dams and houses; also the bark for food. If there are any high banks in the enclosure the beavers will burrow in them and make comfortable homes. In case the banks are low the beavers must be provided with small houses of wood covered with earth, and having entrances of sewer pipe running down into the water. The beavers require at least 3 feet depth of water, but if the conditions are right they will obtain the proper depth by building a dam for themselves. They will bark or cut down all trees within their enclosure that are not protected by sheet metal or wire netting. The best method for protecting trees is to use strong wire netting at the base with sheet metal above, so they can not climb up to the unprotected bark.

The food of beavers in captivity consists of corn on the cob, or shelled corn that has been boiled; as many kinds of food wood acceptable to them as can be procured; also bread, carrots, turnips and other vegetables. If too many beavers are placed in one enclosure they will fight and some of them will be killed. W. T. H.

REGARDING DEER HORNS.

Please pardon me for troubling you with a few questions which I could probably find answered in books on natural history; but as they relate to game I prefer the authority of RECREATION.

Do buck deer shed their horns?

If so, how often?

Are the horns ever knocked off?

Do they contain a pith like the horns of cattle?

How long does it take a set of horns to grow?

Why is it we find so few horns in a deer country?

E. E. Munn, Bradford, Vt.

ANSWER.

All species of deer, elk, moose and caribou shed their horns every year in December, January or February. Occasionally an animal gets one broken off in a fight

or in some other way at other times, though not often. Nearly all the horns shed by these animals could be found in the countries where the animals live if a man should hunt over the ground thoroughly.

I have a photograph in my office of a stack of elk horns that it would take a big wagon to haul, all of which were picked up on a space of 10 acres in the Rocky mountains. I have found a great many deer, elk and moose horns in the woods when I have been hunting. The horns of these species have no pith in them, as a cow horn has. When shed they drop off at the skull, leaving a small round knob, from which the new horn immediately begins to grow. When an animal sheds its horns the new ones begin to grow and are generally full grown by the 1st of September. Up to that time they are covered with velvet or short hair. The animals rub this off by contact with brush. You have probably seen, when you have been in the woods, small bushes that have been broken to pieces by the deer rubbing the velvet off their horns.—EDITOR.

WHITE SQUIRRELS ARE ALBINOS.

Enclosed find a newspaper clipping regarding the shooting of 2 white squirrels:

Stanley Botens shot a pure white squirrel on Mt. Monroe, about 6 miles from this village. Though few specimens of this handsome little squirrel are found, this is the second killed in this vicinity this season. A few weeks ago Daniel Totten shot a white squirrel about half a mile from where the other was killed. Probably both animals were of the same family.—Cuba (N. Y.) *Patriot.*

I was surprised to hear of a pure white squirrel. Do they belong to the same class as white owls and white rabbits? It seems deplorable that a person should be so thoughtless and cruel as to murder such pretty creatures, especially when so rarely seen. I should like to read more about the white squirrel in the natural history department of RECREATION.

W. O. Isaacson, Corry, Pa.

ANSWER.

No, there is no such thing as a species of white squirrel. The animals mentioned in the clipping you sent were simply albino grey squirrels. Albinism occurs at rare intervals in nearly all wild animals and in many species of birds. You can find specimens of white squirrels, chickens, porcupines, chipmunks, flying squirrels, crows, prairie chickens, quails, grouse, hawks, etc., in almost any large museum. True albinos have pink eyes. These birds and animals appear without color simply because of the absence of coloring pigment in the blood or the hair of the animal. In other words, the albino is an accident. You may occasionally see albino people. These have white hair, eyebrows and eyelashes and pink eyes. I have a live white squirrel in my office, which is a beautiful and interesting pet. If you ever come to New York drop in and see him.—EDITOR.

MINK.

The mink is found in America, in Northern Europe and Asia. It is carnivorous and belongs to the weasel family. The mink of the Eastern United States is 12 to 18 inches in length, extremely slender. and has a long neck and small head. The color varies through light brown, brown and dark brown; the darker the pelt the greater its value.

These sly little animals live along the streams, feeding on fish, especially trout when they can be had, and on frogs, mice, muskrats and other small animals.

They are great ramblers in spring, when they will travel many miles in one night. Often they will go great distances from one stream to another.

Their breeding season commences about May 1st. The female is much smaller than the male, and has 4 to 6 young to a litter. She keeps them hidden until about half grown, lest the male destroy them. The best time to trap mink is in November; then they will take bait, while in December and January they will not notice it. The best way to capture them is to find their runs, where you can guide them into your traps without alarming them. Set your trap where they are certain to go, cover it with grass or leaves, and you are fairly sure to capture your game. There are apparently many more male than female mink.

R. K. Duxbury, Pine Plains, N. Y.

NATURAL HISTORY NOTES.

While in the woods just before the opening of the squirrel season I noticed several greys cutting in a hickory. Presently one came running down the tree with a nut in his mouth, passing within 8 or 10 feet of where I stood motionless. He eyed me attentively, evidently wondering what particular class of stump I represented. Finally he gave it up and dug a hole 5 or 6 inches deep in the soft mould. Into that he dropped the nut he had brought and covered it carefully, forcing down the earth with his nose as a dog buries a bone.

It occurred to me then that if the squirrel did not return for it there would be another young hickory growing next year.

The nut would not germinate if left on the ground or under a thin covering of leaves. All who have tried to dig up a yearling hickory or oak know that the germ or seed must have been deeply buried in the first place. Possibly we owe much of our hardwood to the squirrels.

Walter Lusson, Ardmore, Pa.

Most assuredly we do, and this is another reason why we should not kill the squirrels. EDITOR.

In Ohio we have 3 classes of game hogs that kill game without regard to legal limit and utterly ignore all laws. I refer to hawks, owls and crows. The latter are the worst. They not only kill young birds but destroy vast numbers of eggs. They visit poultry yards and destroy eggs and untold numbers of young chickens and turkeys. Last summer one farmer here lost 35 turkeys in that way. When a hawk finds a flock of young quails he will follow until he gets the last bird. Hawks kill 3 times as many quails as all the hunters in the State. A bounty of 50 cents a head should be offered for hawks, owls and crows. It would in the end save thousands of dollars to farmers and double the supply of small game. S. W. Riggs, Sullivan, O.

The letters on skunk raising, in December RECREATION, contain much that is news to me. I especially question the statement that skunks in captivity will give birth to several litters of young each year. I have raised these animals a number of years and never knew one to have more than one litter a season. The period of gestation is 9 weeks, and the young, at least when confined in yards, run with the mother 3 months. All hibernate in extremely cold weather. I have never known the males to destroy the young, and think it only occurs when they are driven to it through scarcity of food.

A. E. Kibbe, Mayville, N. Y.

While Cornelius Rusfeldt of Hawley, Minn., was going to the barn one morning recently he saw an eagle swoop down on some poultry in tall weeds. The bird became entangled in the weeds, and Rusfeldt succeeded in capturing it unhurt. It measures 7 feet from tip to tip of wing, is about one year old and has an insatiable appetite. It swallows whole the heads of blackbirds, etc., and greedily bolts feathers and large pieces of bone. The only thing it has so far refused to eat was a jack rabbit, going hungry 3 days rather than touch it. L. A. R., Hawley, Minn.

I had a strange experience not long ago which may interest some of your readers. In digging out a fox we had holed, we found, about 20 feet from the entrance of the burrow, a dead hedgehog, badly mangled. Beyond him lay another in even worse shape than the first. At the end of the hole we found the fox. He, too, was dead, and his pelt from head to feet was full of quills. He had evidently killed the hedgehogs, who, perhaps, had tried to take possession of the burrow, and had died from his wounds.

F. H. Pierce, South Londonderry, Vt.

My experience as a trapper leads me to believe the muskrat a strictly herbivorous animal. I have set traps near their runways baited with flesh of the muskrat, fish, fowls, etc., but never succeeded in catching a rat that way. If I bait with carrot or apple I have no difficulty in catching them. Their principal food is roots. They may differ in their habits in various places, but I am convinced that the muskrat in this section does not eat flesh.

A. L. Fritts, Olpe, Kan.

A yearly subscription to RECREATION furnishes one of the most delightful, instructive, entertaining presents you can possibly give a man or boy who is interested in nature, in fishing, shooting, amateur photography; or, who is fond of the woods, the fields, the mountains, the lakes or the rivers.

Many of the presents which people give their friends afford pleasure only for a few days, or weeks. A subscription to RECREATION means solid comfort a whole year. It reminds your friend 12 times during the year of your kindness and generosity. There are many men and women who for 5 years past have annually sent in long lists of names of friends, accompanied with a check in order that these friends might be made happy a whole year. Would it not be well for you to adopt this plan?

Try it and see how grateful the recipient will be.

No, I'm not well impressed with the house," said the prospective tenant. "The yard is frightfully small; there's hardly room for a single flower bed."

"Think so?" replied the agent; "but—er—mightn't you use folding flower beds?" —Philadelphia Press.

Have you seen those beautiful gun racks, made by E. W. Stiles, of polished buffalo horns? They are useful, unique and attractive additions to a sportsman's den. For 5 subscriptions I will send you one of these racks.

"Oh, mamma, look at the rabbit!" exclaimed little Margie, as she watched the peculiar twinkle of the animal's features. "Every time he smells anything he stutters with his nose."—The Pilot.

A Laughlin Fountain Pen, listed at $3, for 3 yearly subscriptions to RECREATION. Everyone knows the advantage of having a good fountain pen in his pocket, and this is one of that kind.

Do you want a rowboat? If so, send me 20 subscriptions. I will send you a boat listing at $20.

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"	K. S. Chamberlain,	Mt. Morris.
Nassau,	Willett Smith,	Freeport, L. I.
Albany,	C. D. Johnson,	Newtonville.
Broome,	John Sullivan,	Sanitaria Springs
"	R. R. Mathewson,	Binghamton.
Cayuga,	H. M. Haskell,	Weedsport.
Cortland,	J. A. Wood,	Cortland,
Chemung,	Fred. Uhle,	Hendy Creek,
"	M. A. Baker,	Elmira.
	E. P. Dorr,	103 D. S. Morgan Building, Buffalo.
Erie,		
"	Marvin H. Butler,	Morilla.
Essex.	W. H. Broughton,	Moriah.
Franklin,	Jas. Eccles,	St. Regis Falls.
	W. J. Martin,	McCollums.
Montgomery,	Charles W. Scharf,	Canajoharie.
Oneida,	J. M. Scoville,	Clinton.
Orange,	Wilson Crans,	Middletown.
	J. Hampton Kidd,	Newburgh.
Richmond.	Lewis Morris.	Port Richmond.
St. Lawrence,	Dr. B. W. Severance,	Gouverneur.
"	A. N. Clark,	Sevey.
Schenectady,	J. W. Furnside,	Schenectady.
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	P. F. Tabor,	Orient, L. I.
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Washington,	C. L. Allen,	Sandy Hill.
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"	J. E Barber,	Dresden.
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"	Chas. Seacor,	57 Pelham Road, New Rochelle.
"	E. G. Horton,	Pleasantville.
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Dutchess, Columbia,	A. B. Miller,	Jackson's Corners,
Orange,	Thomas Harris,	Port Jervis.
Onondaga,	James Lush	Memphis.
Yates,	B. L. Wren,	Penn Yan.
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"	Wm. S. Mead,	Woodstock.
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Herkimer.	D. F. Sperry,	Old Forge.
Rensselaer,	Benj. McNary,	Bath.
Oswego,	J. E. Manning,	154 West Utica St.
Putnam,	H. L. Brady,	Mahopac Falls.
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Schoharie,	O. E. Eigen,	Sharon Springs.

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Franklin,	Brook L. Terry,	208 Woodward Av., Columbus.
Cuyahoga,	A. W. Hitch,	161 Osborn St., Cleveland.
Clark,	Fred C. Ross,	169 W. Main St., Springfield.
Erie,	David Sutton,	418 Jackson St Sandusky.
Fulton,	L. C. Berry,	Swanton.
Allen,	S. W. Knisely,	Lima.
Hamilton,	W. C. Rippey	4465 Eastern Ave., Cincinnati.
Knox,	Grant Phillips,	Mt. Vernon.
Lorain,	T. J. Bates,	Elyria.
Ottawa,	Frank B. Shirley,	Lakeside.
Muskingum,	Frank D. Abell,	Zanesville.
Scioto,	J. F. Kelley,	Portsmouth.
Highland,	James G. Lyle,	Hillsboro.

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	Harvey C. Went,	11 Park St., Bridgeport, Ct.
County.	Name of Warden.	Address.
Fairfield,	Samuel Waklee,	Box 373, Stratford.
Litchfield,	Dr. H. L. Ross,	P. O. Box 100, Canaan, Ct.
Middlesex,	Sandford Brainerd,	Ivoryton.
New Haven,	Wilbur E. Beach,	318 Chapel Street, New Haven, Ct.
"	D. J. Ryan,	188 Elizabeth St., Derby.

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Norfolk,	Orlando McKenzie,	Norfolk.
"	J. J. Blick,	Wrentham.
"	S. W. Fuller,	East Milton.
Suffolk,	Capt. W. J. Stone.	4 Tremont Row, Boston.

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Mercer,	Jos. Ashmore,	124 Taylor St., Trenton
Mercer.	Edw. Vanderbilt,	Dentzville, Trenton.
"	Roland Mitchell,	739 Centre St., Trenton.
Morris,	Joseph Pellet,	Pompton Plains.
"	Chas. W. Blake,	Dover.
"	Francis E. Cook,	Butler.
"	Calone Orr,	Hibernia.
Somerset,	G. E. Morris,	Somerville.
Sussex,	Isaac D. Williams,	Branchville.
Union,	A. H. Miller,	Cranford.
	C. M. Hawkins,	Roselle.
Warren,	Jacob Young, Reuben Warner,	Phillipsburg.
Monmouth.	Dory-Hunt,	Wanague.

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"	Geo. T. Meyers,	Titusville.
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Cambria,	W. H. Lambert,	720 Coleman Ave., Johnstown.
Butler,	F. J. Forquer,	Murrinsville.
Allegheny,	S. H. Allen,	Natrona.
Beaver,	N. H. Covert,	Beaver Falls.
"	W. R. Keefer,	"
McKean,	C. A. Duke,	Duke Center.
"	L. P. Fessenden,	Ganere.
Lack,	Wm. Weir,	Moosic.
Carbon.	Asa D. Hontz,	East Mauch Chunk
Cumberland,	J. C. Gill,	Mechanicsburg.
Wyoming,	Cyrus Walter,	Tunkhannock.
Tioga,	E. B. Beaumont, Jr.,	Lawrenceville.
"	G. H. Simmons,	Westfield.
Lycoming,	Jas. J. Brennan,	Oval.
"	B. D. Kurtz,	Cammal.
Delaware,	Walter Lusson,	Ardmore
Montgomery,	L. C. Parsons.	Academy.
Bradford,	Geo. B. Loop,	Sayre.
Clarion,	Isaac Keener.	New Bethlehem.
Cameron,	Harry Hemphill,	Emporium.

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Ottawa,	W. H. Dunham,	Drenthe.
Kalamazoo,	C. E. Miller,	Augusta.
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Cass.	Thomas Dewey.	Dowagiac.

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King William	N. H. Montague,	Palls.
Smythe.	J. M. Hughes,	Chatham Hill.
King & Queen,	R. D. Bates,	Newtown.
Louisa,	J. P. Harris,	Applegrove.
Henrico,	W. J. Lynham,	412 W. Marshall Richmond.
East Rockingham,	E. J. Carickhoff,	Harrisonburg.

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Fremont,	Nelson Yarnall,	Dubois.
Uinta,	S. N. Leek, F. L. Peterson,	Jackson.
Carbon,	Kirk Dyer,	Medicine Bow.

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Laramie,	Martin Breither.	Cheyenne.

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Sumner,	W. G. Harris,	Gallatin
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Cheyenne, Wyo.,	J. Hennessy.	"
Coudersport, Pa.,	J. L. Murphy,	"
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Davis, W. Va.,	J. Heltzen,	"
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East Mauch Chunk,	Pa., E. F. Pry,	"
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Fontanet, Ind.,	W. H. Perry,	"
Ft. Wayne, Ind.,	W. L. Waltemarth	"
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Johnsonburg, Pa.,	W. J. Stebbins,	"
Kalispell, Mont.,	John Eakright,	"
Keene, N. H.,	F. P. Beedle,	"
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There are thousands of men in the United States who should be life members. Why don't they join? Will some one please take a club and wake them up?

GAME MARKET GONE.

Chicago *Herald*, Jan. 19.

Game is scarce in Chicago. Stocks of such kinds as are offered are light, and prices are at a point which virtually checks general consumption. Up to 1899 Chicago was one of the principal game markets of the world. From more than a score of the States and Territories came the choicest victims of the hunter, and that which could not be secured in this city in the way of game was certainly not obtainable elsewhere.

Venison sold here many years prior to 1900 at a price relatively less than that of the same cuts of beef, while quails seldom went above $1.25 to $1.50 a dozen, at which price they are cheaper than any other edible fowls, wild or tame. Now the meager offerings of venison are held at about 30 cents a pound, an advance of almost 100 per cent. on the average prices of former years.

The few quails exposed for sale are quoted at $3 a dozen for the best stock, a few

No. 2 being sold as low as $2. Prairie chickens usually sold at $4 to $6 a dozen, and were well worth the money. During the present season they have sold at $9 to $10, with the supply extremely limited. Ruffed grouse sold this year at $11 to $12 a dozen. Formerly they were held at about the same price as were prairie chickens, and few have been offered as compared with former years.

The stringency of the game laws of almost all the States has brought this change and wrought havoc with the trade. During the present season the combined holdings of the game houses of the city often did not amount to the stock formerly carried by a single firm. To these laws, do the dealers attribute the ruin of Chicago's game market. The statute preventing the shipment beyond the limit of the State is especially blamed for the disaster to the business.

And the League did it. Verily the League is great. Why not join the League and invite your friends to do so?

Send your application to Arthur F. Rice, Sec'y, 23 West 24th Street, N. Y.

A GOOD SUGGESTION.

Col. E. C. Farrington, Secretary of the Maine Fish and Game Protective Association, in his annual report says:

"I desire to call your attention to the great work being done by the League of American Sportsmen, of which Mr. G. O. Shields, editor of RECREATION, is president, and of which President Roosevelt is a prominent member. It seems to be the only organization to which we can look for the saving of our birds and wild animals. It not only has, owing to the character of its organization, large influence in our National councils, but its efforts in the different States are proving of the greatest benefit in suppressing the illegal slaughter and illegal selling of fish and game. This League ought to be sustained, and Maine sportsmen and lovers of the dumb creation should aid in every possible way in its work. It costs but $1 to join the association, and thousands of our citizens could, without feeling the burden, help it, materially and in influence, by becoming members of that National League. I suggest for your consideration that it would be wise to so modify our charter as to permit this association to become members of that body, and thus join our efforts with those of the League of American Sportsmen."

I wonder if the sportsmen in general notice how few women are wearing plumage of song birds on their hats this winter. In my travels I have scarcely seen one. I have seen a few gulls, or tern on the hats of women who are not up to date. The absence of bird plumage on hats is due largely to the work of the League. The Audubon Societies and the American Ornithological Union have also done good work in this direction, but League members can claim a large share of the honors. However, we do not care so much for this as for the fact that the traffic in bird plumage has been practically squelched, and as a result I hear from various portions of the country that birds are rapidly increasing.

When I was at my dear old home in Brunswick county, Virginia, my sister and I decided to join the League of American Sportsmen. We believe in protecting the game and the song birds. If we were men we would be game wardens; but we are only 2 resolute women who want to do what we can for an excellent and deserving cause, so I send herewith $2. Please initiate us into membership with this noble fraternity.

Birds are not numerous in this section, but I have never known them more abundant in Brunswick county, Va.

Jennie P. Buford, Winston Salem, N. C.

The League is making a strong effort to have the present Congress pass a bill to stop the wholesale slaughter of game in Alaska; another, to make all the timber reserves in the Western States national parks, and to stop all hunting therein; another to extend the Yellowstone National Park South and East to include adjacent timber reserves and to provide adequate winter range for the elk, whose home is in the park. As soon as these bills are in proper shape for effective work, a circular letter will be sent to all League members asking them to aid in securing the passage thereof.

The last form of this issue of RECREATION goes to press a few days before the annual meeting of the League in Indianapolis, so it is impossible to give any report of the proceedings in the March number, but I hope to have this ready for the April number. At this writing there is a prospect of a large attendance at the meeting and there are a number of important measures to be acted on; so the report of the meeting will no doubt be full of interest for all members.

FORESTRY.

EDITED BY DR. B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes thirty years to grow a tree and thirty minutes to cut it down and destroy it.

FOREST USES DEFINED.

New York State has been charged by a set of New York City bankers with having violated her Constitution by establishing the Demonstration Forest, which the College of Forestry was to manage, and the methods of the College have been criticised, apparently for the sole reason that they were unknown to these gentlemen and to certain newspaper writers, who therefore assume that the methods must be wrong. Concerning this matter the Director of the College of Forestry, himself a professional forester, says, in his latest report for the year 1901:

Forestry is a technical art, wholly utilitarian, and not, except incidentally, concerned in esthetic aspects of the woods. It is engaged in utilizing the soil for the production of wood crops, and thereby of the highest revenue attainable. To make the soil produce the largest quantity of the most useful wood per acre is the foremost aim of forestry. It is in this respect the twin sister of agriculture, wood material being the object of the forester, food materials of the farmer.

There may be in addition secondary objects to be attained by a forest growth, and sometimes these secondary objects may be even of main importance; as, for instance, where on steep, Alpine mountain slopes a forest cover is to be maintained in order to prevent erosion and rapid surface drainage of waters—so-called protection forests; or where the owner has decided to set aside his forest property as a game preserve or recreation ground, such as the State Forest Preserve is at present—a luxury forest.

Not that these secondary objects need to exclude the primary object of forest growth, namely, the production of useful material; but in these 2 cases the methods of management will differ perhaps somewhat from those employed in the business forest. Nor does the manager of a forest managed for business purposes, namely, wood production and revenue, necessarily neglect any of the other benefits a forest may bring as far as his main object permits or makes desirable. The German forests are managed with due regard to all 3 purposes, the business side taking, to be sure, precedence.

In an article on "Adirondack Forestry Problems," printed in the report of the New York State Forest, Fish and Game Commission for 1898, I pointed out in more or less detail what differences in management there would be, according to whether the protective, the luxury or the business object is to be made the prominent one.

That the College Forest was set aside and was to be managed primarily as a business forest will appear from the reading of the law which instituted it, to show "the scientific management and use of forests, their regulation and administration, the production, harvesting and reproduction of wood crops and earning a revenue therefrom." This last injunction leaves no doubt as to the intention of the legislator; hence the entire management of the College has been based on the business aspect of the proposition.

To earn a revenue necessitates the sale of something; hence the law provides that the University, having "title, possession and control of the land, shall plant, raise, cut and sell timber at such times and of such species and quantities and in such manner as it may deem best."

This language fully and explicitly describes the business of the forester, and is being explicitly followed by the College as manager of this property. The forester, then, is a harvester, as well as a sower or planter. The crude idea entertained by the ignorant, that he is to cut out dead trees and trim branches, which he can not sell, and clear out undesirable undergrowth, which would not only be expensive but often bad forestry, can be put into practice only in "luxury forests," in which the owner is willing to spend his substance for the sake of gratifying his pleasure.

To earn a revenue, the old crop, nature's crop, must be harvested and sold in such a manner and at such prices as to leave a margin. The difficulties which surround this requirement have been discussed at length in previous reports. It was there pointed out that the forester, who can not, like the lumberman, merely harvest the most profitable and salable portions of nature's crop, culling out the desirable, leaving the undesirable, but must secure the reproduction of this or rather of a better crop, is at a disadvantage in having to provide for means of disposing of the inferior material, the offal and *debris*, which would encumber the ground after a logging operation and would interfere with the growth

he must often cut more than the logger, if he wishes to fulfill his main duty of replacing the old by a better young crop.

Thorough utilization of all portions of the crop, which the lumbermen can avoid, if unprofitable, is as much an obligation of the forester as reproduction of the crop, if not for economic then for silvicultural reasons. Hence, when a tree is felled, not only the body, which makes logs, but as far as practicable the branchwood and brush, the crooked, misshapen and half rotten parts should be disposed of; a difficult financial problem where wood is plentiful and no market for such material exists.

Working in hardwood, as in the College Forest, this *debris*, or inferior material, represents 2 to 3 times in bulk what the log material furnishes. Hence, the first and main concern of the management was to secure a market for this part of the harvest, as well as for the logs. The only known means of profitably utilizing large quantities of cordwood, away from dense population, and when the cost of transportation forbids its sale as firewood, is in its conversion into wood alcohol, acetic acid and charcoal. Arrangements were therefore made with the Brooklyn Cooperage Co. to establish factories for the manufacture of logs into staves and of cordwood into wood alcohol, and for building a railroad to transport the materials from the woods to the factories.

This combination, in which almost all the material of the felled trees is turned to best use, instead of wasting, as the logger usually does, 2-3 to ¾ in the woods, is the first of its kind established in the United States, since usually the manufacturers of wood alcohol use the body-wood also in their manufacture, and the College felt rather proud of its achievement in bringing about this economic reform in the use of the wood crop. Curiously enough, an attempt has been made by ignorant or ill disposed or otherwise improperly interested persons to discredit this effort at thorough utilization.

The application of forestry or silviculture to our culled and mismanaged woodlands throughout the United States as a business proposition is in most cases possible only where the means exist of utilizing this inferior material; for the cash which would otherwise have to be spent in making room for the young crop will surely exceed reasonable proportions, or else the young crop will be inferior or suffer damage.

In those woods from which the valuable conifers have not as yet been culled, it may be possible and good business policy merely to remove the salable part of conifers with less damage, if possible, than the culling process usually brings with it, and to defer the application of positive silviculture to some later period; but in the culled hardwoods no silvicultural methods designed to reproduce a better crop can be successful which do not take care of the *debris*.

I hope I have made clear to any intelligent reader that forestry consists in harvesting as well as in replacing wood crops; that in this obligation to provide for a new crop, and almost alone in this, does the forester differ from the lumberman.

Having been successful in securing a market for most of the material to be harvested, the next question was as to the manner of harvesting and reproducing the crop, the choice of the silvicultural system, namely, the method by which the crop is to be reproduced.

There are many variations in method possible, from the simple clearing and artificial replanting, through various degrees of gradual removal and natural reproduction to the so-called "selection forest," in which the harvest is made continuous by slow removal and the reproduction, by natural seeding, is also continuous. Among practitioners no one of these methods is recognized as the only proper one. Each has its advocates and objectors; each has its advantages and disadvantages; each has its place under certain given conditions. It is only the less experienced who clings to one prescription; the man of wider judgment varies it according to conditions.

The choice of method is partly influenced by natural conditions, partly by the objects and conditions of the owner. In a protective forest and in a luxury forest, the selection system, which culls here and there and leaves the forest as a whole undisturbed, may be most satisfactory on account of the objects in view, which necessitate a constant soil cover of grown timber; but in a business forest, which is managed for revenue, the first or any of the intermediate methods of gradual removal, or a combination of natural and artificial means of producing the crop may be preferable, because cheaper or more successful in final results of a useful timber crop.

Among the younger generation of foresters there seems to be a belief that the selection system or some system of gradual removal and natural regeneration alone is to be advocated. On the other hand, an old German practitioner, a past master of the art, sums up his observations and experiences regarding the artificial and natural regeneration as follows:

"Fortunately there was a time when it was supposed to be the best method to clear away the old conifer and oak stands and replace them by hand. From this time date the dense 20, 30, 40, 50 year old pole-woods of spruce, pine and oak, which we can ex-

hibit with satisfaction in many districts. They are the veritable bonanzas of the future, which will furnish more valuable material than our older stands, resulting from methods of natural regeneration. Clearing, followed by planting and sowing, deserves, with a few exceptions, preference over natural regeneration. Besides, this latter method is much more expensive indirectly in cost of logging and loss of time and young growth than most practitioners think."

Finally, in a business forest, the relative cost of each method is determinative, unless strong reasons can be brought to make the choice of the more expensive method imperative.

The clearing method, with artificial planting, permits statement of approximate cost. The harvesting is concentrated and the elements of its cost can be readily figured, as also can the cost of planting; and a complete success of the young crop can almost be forced. With the gradual removal and natural seeding methods an area 10, 20, 30 times as large must be taken into operation simultaneously, to secure the same felling budget annually; that is to say, means of transportation for the harvested crop must be spread and must be maintained over a much larger area in order to secure the single annual felling budget by gradual removal during a given number of years. Here is, then, a first investment to be made which would prevent the manager, who has no capital to invest, from adopting such a method, even if he should recognize it otherwise as best.

The larger the area to be harvested over, the more expensive does the harvest become; how much in proportion it would be difficult to figure, even under given conditions, but every logger knows that the difference is considerable and will go far to offset the direct money outlay for planting.

Finally, the result, in a natural young crop, is by no means so assured as the theorist who discusses the natural regeneration methods on paper takes for granted. It is dependent on many uncontrollable or only partially controllable circumstances, among which the occurrence of seed years, proper weather and especially proper soil condition at time of seeding and germination, and proper light conditions during early development should be mentioned. The result, especially in a mixed forest, with species of unequal value, even in the most skillful hands, is not so absolute as with artificial reproduction, which practically is controlled by the purse alone.

The management of the College Forest, having its working funds curtailed to the lowest limits, and having no capital to invest in permanent systems of transportation, was prevented by financial considerations at the outset from inaugurating any system of gradual removal, even if it had considered such a system, under the conditions, desirable. There were, however, good silvicultural reasons why, for that part of the property which it had first to take into operation, another system was preferable.

It stands to reason that in the systems of natural regeneration only those species can be reproduced which are present in sufficient numbers; hence, if we wish to have in the new crop species which are absent or poorly represented, we must resort to artificial means. In the Wawbeek district not only has the most valuable part of nature's original crop, the white pine and spruce, been previously most severely culled, leaving few or no trees that could be utilized as seed trees, but the young volunteer growth of these species is poorly represented or, as in the case of the white pine, mostly absent.

These species which are recognized as most desirable would have to be, therefore, supplied artificially. Hence a mixed system has been adopted, which consists in concentrated logging, in which all young volunteer growth and sapling timber of promise is saved as far as practicable, and the valuable conifers are planted in, or sown, as the case may be, at the rate of 500 to 1,500 plants, according to needs. Moreover, clumps of trees have been left on elevations and otherwise scattered over the area, to act as seed trees to fill in the crop with hardwoods and native spruces. Besides, as the annual cuts are not strung together, but widely separated, the margins of the cut area also provide seeds for that purpose for several years. In other words, a mixed natural and artificial system has been chosen, which promises most success in the reproduction, and probably at the least expenditure; the result expected being a mixed forest of hardwoods and conifers, in which the latter are given the preference.

The College has thus far cut over about 300 acres and planted 255 acres, and has large nurseries, containing nearly 2,000,000 seedlings, to be used in planting wherever the necessity arises. Its main trouble is the deficiency of funds to carry on its business satisfactorily.

When you are through with your rifle or shot gun for the season where will you keep it? Would you not like a handsome gun rack to hold it? If so, send me 5 yearly subscription to RECREATION and I will send you such a rack, made of polished buffalo horns. It will not only afford a convenient resting place for your gun, out of harm's way, but is an attractive ornament to a wall.

PURE AND IMPURE FOOD.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH. D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

PREPARATION AND FOOD VALUE OF CONDENSED MILK.

I find RECREATION's Pure Food department exceedingly interesting and instructive. So far, olive oil and condensed milk, both important articles of food, especially to persons suffering with pulmonary diseases, have not been discussed in these columns.

I believe an account of the methods of preparing these articles would meet with a hearty welcome from many of your readers.

I have used Borden's condensed milk since seeing it advertised in RECREATION, and find it far more convenient and reliable in the South than fresh milk.

But questions like these arise: Does it come from clean and healthy cows? Is it not contaminated by foul barns or milk houses? Is the canning of it properly conducted, or is it managed like some fish and tomato canneries we know of, a sight or smell of which is quite sufficient to cure anyone of further taste for goods therein handled? What your readers want is the truth about this matter, as they got it about the Marlin rifles.

If this is asking too much of RECREATION, I can only say that RECREATION has taught us to expect great things of it.

W. G. Jennison, Chiply, Fla.

ANSWER.

Condensed milk is prepared from fresh milk by evaporating the water present, sugar being added as a preservative. Evaporated milk is prepared in much the same way, except that less water is driven off and sugar is not added. The composition of milk, condensed milk (sweetened), and evaporated milk (unsweetened) follows:

Percentage composition of milk is: Water 87; protein, 3.3; fat 4; carbohydrates 5; ash 7. Its fuel value is 325 calories a pound.

Condensed milk (sweetened): Water 26.9; protein 8.8; fat 8.3; carbohydrates 54.1; ash 1.90. Fuel value 1,520 calories a pound.

Evaporated milk (unsweetened): Water 68.2; protein 9.6; fat 9.3; carbohydrates 11.2; ash 1.7. Fuel value 780 calories a pound.

It will be seen that in proportion to its bulk condensed milk is much more nutritious than fresh milk. As ordinarily used it is diluted with water until it resembles more or less closely the original milk from which it was made, except that it is sweeter. Like all milk it is a valuable food containing protein for building and repairing body tissue, and furnishing energy for internal and external work. When fed to infants, condensed milk should always be diluted; after the second month barley gruel should be added to the diluted milk.

Condensed milk and evaporated milk are sterilized in the process of manufacture, and if properly made are much less liable to communicate bacteria to man than fresh milk. Of course if condensed milk is not properly handled after the can is opened it may become contaminated. I have no personal knowledge of the methods of manufacture followed by the firm referred to. It is probable that all reputable manufacturers exercise proper precautions in preparing their goods. Appended is a letter from the Borden Co.—EDITOR.

New York City, July 1, 1901.

All the modern sanitary and hygienic rules and regulations governing the production and handling of milk in every form were originated by this company over 40 years ago, and improved from time to time as experience presented the opportunity. The regulations of boards of health, and the demands of physicians when reasonable, we have studied to profit wherever possible. Our product is indorsed by the leading physicians of this country whose specialty is the feeding of children. They do not indorse the Eagle Brand without careful investigation of the matter. We also refer you to the fact that we have taken the highest award at every exhibit, which award covers not only the finished product, but the methods used.

Borden's Condensed Milk Co.,

THE CHINA RELIEF EXPEDITION.

The report of the Commissary-General to the Secretary of War, which has recently been issued, contains much interesting information regarding the food of the United States troops on the relief expedition to Pekin during the recent Chinese war. One of the officers says:

"It is borne in on the campaigner that the eatables and drinkables, if not the most important, are at least the most continuously insistent of the indispensables. Of these there was an ample supply at Tientsin from the time of the arrival there of the first American troops, and they included not only the ordinary components of the ration, but most of the delicacies classed as

fancy groceries. Ginger ale and bottled waters were in abundance, and plenty was the order of the day. The food of our soldiers exceeded in quantity, quality and variety that of any of the allied forces, as was the comment of all foreign officers under whose notice it fell. When the march to Pekin was taken up, however, the fare was less generous. All supplies directly accompanying the troops had to be carried in wagons or on pack mules, and of these means of transportation the command was short, having sufficient only for carrying 3 days' rations and 100 rounds of reserve ammunition per man; but, in common with the other contingents, we had a reserve supply of rations and ammunition following on the junks by the Peiho, of which the course was in the general direction of the march as far as Tung Chow, within 13 miles of Pekin. Such luxuries as tents, however, are out of the question.

"The ration thus carried was reduced to about 3 pounds per man, the full ration in bulk with its packing cases weighing about 5 pounds per man, and comprised the staples: Bacon, hard bread, sugar, coffee, rice, beans and condiments. Even so, it was better than was carried for the troops of any other nation. Within 3 days after the arrival at Pekin fancy groceries and bottled waters appeared in the American commissary, and within a week there was an abundance of these for all."

Regarding the vegetable rations it is stated that:

"Some of the vegetable ration was carried and issued *en route*. The country, however, furnished a bountiful supply of vegetables, egg plant, green corn, sweet potatoes, beans, lettuce, etc.

Another officer says:

"In my mind there were none who had such excellent or abundant a supply as the Americans. The Japs had rice, bread, and dried fish and tea, which they supplemented by the use of the sheep and cattle the country produced. They also had American canned meats, but they seemed to be an emergency diet.

"The British white troops had a ration similar to ours in quality and quantity, but not so varied or flexible. They used tea instead of coffee. The British Indian troops had about ¾ of a pound of atta, or flour; about 1 pound of rice; 1 gill of ghee, or vegetable oil; salt, and once a week a pound of fresh meat, bone and all."

FORCING ASPARAGUS.

A satisfactory method of forcing asparagus in the field has been reported by the Missouri Agricultural Experiment Station. This consists in supplying the plants in the open field with the heat required for growth by means of steam. The method is as follows: Trenches were made by running a plow twice in a place between the rows of asparagus plants so as to throw the soil on them. The trenches were then made uniform by means of a spade. When finished they were 3 or 4 inches lower than the crown of the plants. They were covered with 12 inch boards resting on 4 inch blocks on either side of the trenches, thus forming tunnels between the rows. The boards were covered with 2 or 3 inches of soil, and over the whole bed 5 or 6 inches of horse manure was placed. Steam from a boiler was carried to the end of the central tunnel by a steam pipe, and from there forced into the various tunnels through a steam hose. The steam, coming into direct contact with the soil, penetrates it readily, and thereby warms the whole bed uniformly to the desired temperature, keeps the soil moist, and maintains a continuous fermentation of the manure mulch. It was found that about 5 minutes at a time was as long as steam could be forced into the tunnels without danger of injuring the plants. In the first test of the method at the station, 6 rows, 4 feet apart and 50 feet long, were prepared for forcing. Steam was first applied November 14. It was discharged in each tunnel not over 5 minutes at a time, about an hour being required to heat the bed to a temperature of 60 degrees Fahrenheit. After the first day the bed was steamed on an average of twice in 3 days, and only for 5 minutes for each tunnel. The first asparagus was cut 10 days after steaming was begun. It was as large as that ordinarily produced in spring and much more crisp. Cuttings were made almost daily for a month, when the growth became weak. The second test was begun December 16, and carried out as in the first test. The bed prepared for forcing was 25 by 74 feet. The first cutting was made 2 weeks after the first steaming. The time of cutting was less regular than in the first test, and was prolonged about 2 months. The weather being colder, somewhat more steam was required than in the first test. The plants forced were allowed to grow without cutting during the following summer, and the next spring's growth showed that one season's growth after forcing was sufficient for the plants to regain their normal vigor. A test was also made with a bed 25 feet square to determine the quantity of coal necessary to force a given area of asparagus and to determine the value of the product. The steam was first used December 29, the first asparagus cut January 12, and cutting was continued until February 25. Steam was forced into the tunnels a total of 60¼ hours; 2,308 pounds of coal, valued at $1.82, were used in heating the bed. The yield was 162 bunches (80 pounds) valued at 10 to 20 cents a bunch.

BOOK NOTICES.

ANOTHER WILD ANIMAL BOOK.

E. T. Seton has given the world another great book. The title of this is, "Lives of the Hunted," and it deals in Mr. Seton's usual effective way with the life history, the trials, tribulations, joys and sufferings of certain wild animals and birds with which Mr. Seton has become acquainted in his ramblings.

The most interesting and important story in the book is that of Krag, the Kootenay ram, the story of whose death was told in July RECREATION, 1897. Mr. Seton has gone back to the baby days of old Krag, has rambled under his family tree, and has then visited and associated with Krag from that day to the day of his death. The story is told with all the pathos and dramatic force of the trained artist-naturalist, and the ardent lover of all wild creatures. Sandy MacDougall, who so relentlessly pursued old Krag, and who finally met his death as the result of vile treachery, is very properly consigned, in this story, to a bed of suffering for many months, and his bones are finally found moldering in the old shack in which he lived. Readers of RECREATION will be delighted to go away back on the trail, high up in the Cascade mountains, and meet old Krag in the heyday of his existence. They will follow him through the various stages of his life and through the tragic scenes that finally ended in his death, with feelings of the sincerest pity.

Other stories in Seton's latest book are, "A Street Troubadour," "Johnny Bear," "The Mother Teal," "Chink," "The Kangaroo Rat," "Tim," "The Story of a Coyote," and "Why the Chickadee Goes Crazy Once a Year." No one can read any one of these stories without feeling nearer to nature and without loving its wild creatures more tenderly than ever before. The book is illustrated in the happy and artistic manner for which Mr. Seton has been famous many years. Two of the illustrations are shown on pages 186 and 187 of this issue, and there are 100 others in the book equally beautiful and interesting.

A FOREST BOOK.

Anyone who likes rambling in books as well as rambling in the woods themselves can profitably while away a lazy hour with "Forest Trees and Forest Scenery," a dainty little booklet by G. F. Schwarz, of somewhat over 3,000 lines and 26 pretty pictures.

The object of the book is to bring out the esthetic aspects of a few forest trees and of forest scenery of different kinds, pointing out the elements of beauty with a considerable amount of poetic sentiment and reasonable accuracy of observation, reminding us of the style of Thoreau. The book is divided into 6 chapters. The first discusses a few broadleaf trees and conebearers; the second chapter the minor vegetation; the third explains the forest types found in the United States. Two chapters are devoted to a development of the character of broadleaf forests and coniferous forests. The last chapter, on "The Artificial Forests of Europe," is by all means the best, explaining with fine perception and appreciation the difference esthetically between the wild woods and the cultivated forest, and incidentally making proper distinction between our National and State Parks and Forest Reserves, which latter are to serve mainly utilitarian purposes, with the esthetic value secondary. Published by the Grafton Press, New York.

"Photography as a Fine Art," by Charles H. Caffin, will delight all who appreciate the pictorial possibilities of the camera understandingly used. Those still willing to call any photograph a picture will find in the book abundant reason for more discrimination. Mr. Caffin has selected 100 examples of the best work of Stieglitz, Käsebier, Keiley, Eugene, Dyer, White, Steichen and others. On these he comments instructively, pointing out wherein each, in his opinion, reaches or falls short of true art. A study of the collection will profit the amateur who desires his work to be an expression of artistic individuality.

The publishers, Doubleday, Page & Co., New York, will send the book postpaid to any address on approval, to be paid for or returned at the recipient's option. The price is $3.

"The Road to Frontenac," by Samuel Merwin, which has been running serially in Leslie's Monthly Magazine, is now published in book form by Doubleday, Page & Co., New York. The price of this volume is $1.50, and the book will be sent postpaid to any address on approval, to be paid for if satisfactory, or to be returned in case it is not wanted after examination.

"Highways and Byways in the Lake District," by A. G. Bradley, with illustrations by Joseph Pennell, is from the press of Macmillan & Co., New York, and is similar in treatment to "Highways and Byways in Normandy," published by the same house about a year ago. It forms an interesting addition to the extensive literature of the English lake region.

EDITOR'S CORNER.

DEATH OF A GREAT WORKER.

The League of American Sportsmen has sustained a great loss in the death of Albert E. Pond, which occurred at his home in this city, Jan. 16, from pneumonia. He was Chief Warden of the New York division, and in that capacity he proved for 4 years one of the most valuable workers the cause of game protection has ever had. He was one of the few men I could always rely on to do whatever I asked him to do. If I called a meeting of a committee or of League officers I could invariably count on Mr. Pond as one of the men who would be present. If I appointed him on any special committee to do any piece of work, I knew it would be done, and it always was done promptly and effectively. If I had a case in any of the courts against a game law violator Mr. Pond was always at my elbow to give me moral support. If I needed money to carry on this work Mr. Pond was always ready to contribute his share of it. If it became necessary for a few League officers to go anywhere in the United States to appoint any meeting or to do any special piece of work Mr. Pond was always the first man to volunteer or to respond to an invitation to go.

Throughout all his administration of the affairs of the New York division, he persistently declined to receive a dollar of the funds accruing from memberships in this State, to which he was entitled. He paid all the expenses of carrying on the work of his division out of his own pocket, and contributed largely to the general expenses of the League in addition. He was always good natured, cheerful, earnest and enthusiastic in his work. He was always looking for violators of the game laws, following them up, punishing perpetrators in his own way or bringing them to the bar of justice to be punished.

He has reported many cases of law breaking, that he could not reach himself, to State officers; has followed them up and has thus been instrumental in bringing the offenders to justice.

He was a member of the New York Zoological Society, a member of the Camp Fire Club and of the 7th Regiment Veteran Association; and he was always in his place and doing more than his share of work in all these organizations.

Mr. Pond leaves a widow and son to whom the sympathy of all good sportsmen is extended. In Mr. Pond's death I have lost one of the best friends I ever had or ever expect to have. May his soul rest in peace.

MR. HARTLEY DROPS DEAD.

Marcellus Hartley, head of the old house of Hartley & Graham, for many years at 315 Broadway, New York, dropped dead in the office of the American Surety company, January 8. He had been apparently in the best of health when stricken suddenly by heart failure.

While greeting a friend whom he had met there, his head dropped forward and he collapsed. He was carried to a lounge and died within a few seconds. He was born in this city September 23, 1828, and his first employment was in the office of an importer of firearms. He formed a co-partnership in 1854 with J. R. Schuyler and Malcolm Graham, opening a place of business in Maiden Lane. The firm became Hartley & Graham in 1876. About 2 years ago there was another change, and the M. Hartley Company was formed. Mr. Hartley was president of the Bridgeport Gun Implement Company, of the Remington Arms Company, and of the Union Metallic Cartridge Company. He was also interested in several banks and other strong corporations.

His death marks an epoch in the sporting goods trade of this country and his counsels will be sorely missed by his former associates.

The New York Zoological Society wants a Canadian lynx and a cougar, or mountain lion. Any reader of RECREATION knowing where a good, live, healthy specimen of either of these animals can be bought, will do the society a valuable service, by addressing Mr. W. T. Hornaday, 183d St., and Southern Boulevard, New York City.

Have you the best possible outfit ready for your spring and summer photographic work? Such an outfit is expensive. Why not reduce this expense by earning some supplies as premiums? For instance, if you wish to save your photo prints, send me 2 yearly subscriptions to RECREATION, at $1 each, and I will send you a Buechner album that will hold 100 4 x 5 prints. It will be of great value to you in showing the progress you make in your photography, from the first page to the last, and your prints will always recall interesting memories.

If you wish to make several of your friends happy give each of them a year's subscription to RECREATION. At least once every month they will think kindly of you.

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SUCH WHISKEY AS WE OFFER FOR $3.20 CAN NOT BE PURCHASED ELSEWHERE FOR LESS THAN $5.00 PER GALLON. ∴ ∴ ∴

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I guarantee the above firm to do as it agrees.—Editor.

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IT IS a decided advance upon anything heretofore produced. The revolving lens sweeps from one side to the other, making a picture greater than your two eyes can see at one time.

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Multiscope & Film Co., No. 136 JEFFERSON STREET BURLINGTON, WIS.

AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

7th ANNUAL COMPETITION.

RECREATION has conducted 6 amateur photographic competitions, all of which have been eminently successful. The 7th will open April 1st, 1902, and close November 30th, 1902.

Following is a list of prizes to be awarded:

First prize: A Long Focus Korona Camera, 5 x 7, made by the Gundlach Optical Co., Rochester, N. Y., fitted with a Turner-Reich Anastigmat Lens, and listed at $85.

Second prize: A No. 3 Folding Pocket Kodak, made by the Eastman Kodak Co., Rochester, N. Y., fitted with a Bausch & Lomb Lens, Plastigmat Unicum Shutter, and listed at $61.50.

Third prize: An Al-Vista-Panoramic Camera, made by the Multiscope and Film Co., Burlington, Wis., and listed at $40.

Fourth prize: A Wizard C Camera, 4 x 5, made by the Manhattan Optical Co., Cresskill, N. J., with B. & L. Iris Diaphragm and Leather Carrying Case; listed at $33.

Fifth prize: A Waterproof Wall Tent, 12 x 16, made by D. T. Abercrombie & Co., New York, and listed at $32.

Sixth prize: A Gold Hunting Case Watch; listed at $50.

Seventh prize: A Tourist Hawkeye Camera, 4 x 5, and made by the Blair Camera Co., Rochester, N. Y., and listed at $15.

Eighth prize: A Bristol Steel Fishing Rod, made by the Horton Mfg. Co., Bristol, Conn., and listed at $6.

The 10 next best pictures will each be awarded on dozen 8 x 10 Carbutt Plates, made by the Carbutt Dry Plate Co., Wayne Junction, Philadelphia, Pa.

The 10 next best pictures will each be awarded one dozen 5 x 7 Carbutt Plates.

The 10 next best pictures will each be awarded one dozen 4 x 5 Carbutt Plates.

A special prize: A Goez Binocular Field Glass, listed at $74.25, will be given for the best picture of a live wild animal.

Subjects are limited to wild animals, birds, fishes, camp scenes, and to figures or groups of persons, or other animals, representing in a truthful manner shooting, fishing, amateur photography, bicycling, sailing or other form of outdoor or indoor sport or recreation. Awards to be made by 3 judges, none of whom shall be competitors.

Conditions: Contestants must submit 2 mounted prints, either silver, bromide, platinum or carbon, of each subject, which, as well as the negative, shall become the property of RECREATION. Negatives not to be sent unless called for.

In submitting pictures, please write simply your full name and address on the back of each, and number such prints as you may send, 1, 2, 3, etc. Then in a letter addressed Photographic Editor, RECREATION, say, for instance:

No. 1 is entitled —— ——.
Made with a —— —— camera.
—— —— lens.
On a —— —— plate.
Printed on —— —— paper.
Length of exposure, —— ——.

Then add any further information you may deem of interest to the judges, or to other amateur photographers. Same as to Nos. 2, 3, etc.

This is necessary in order to save postage. In all cases where more than the name and address of the sender and serial number of picture are written on the back of prints I am required to pay letter-postage here. I have paid as high as $2.50 on a single package of a dozen pictures, in addition to that prepaid by the sender, on account of too much writing on the prints.

Any number of subjects may be submitted.

Pictures that may have been published elsewhere, or that may have been entered in any other competition, not available. No entry fee charged.

Don't let people who pose for you look at the camera. Occupy them in some other way. Many otherwise fine pictures have failed to win in the former competitions because the makers did not heed this warning.

CONCERNING DISTANT FIELDS.

Edward W. Newcomb, in the Photo Record.

It is properly held by all advocates of photography that the pursuit of subjects for our cameras takes us out into the country, fills our lungs with pure air, and thus provides Health and pleasure combined. This can not be denied, nor have I any wish to dispute the fact; but to those who really desire to produce lasting pictures let me say there are certain subjects at home which, while completely overlooked, are much choicer than are the extended views to be had in the next 5 States. It is strange we with cameras all seem so infatuated with landscapes that, out of a collection of several hundred photographs, there will be a vast preponderance of landscape, some with figures, more without, and few, if any, of the real pictures that one can not help seeing on every side right in our own homes and in our own streets. As a record of where one spent a pleasant summer, these views are not to be despised, though all will admit that their interest is usually personal. These pictures rarely exhibit great artistic excellence, and, even if they do, the credit does not belong to the photographer, for he merely placed his camera in front of these existing gems and obtained a copy of what he found there, what others had duplicates of, and others to come would produce. There is nothing meritorious about such work, since it is in no sense original. I

admit, the taking of records to recall a pleasant summer has its excuse, since the practice affords pleasure. But what of the man who, in attempting to win a prize or merely to produce something extra fine, shoulders his photographic outfit and takes long trips away from home to secure some quiet bit of landscape? Is he not, after all, wasting precious time, when right at his door there exists material for a more pleasing picture? After a long ride and some walking, he finds a field of grain that he fancies, an old farm house, a rustic bridge over a brook, a scene down a lane, and maybe a haystack or 2. Then the light fails and he goes home to develop those things. When they are printed he perhaps finds them so technically good that he enters them in a competition or sends them to an exhibition, and later he wonders why he got no prize or mention, when some prints that were vastly inferior to his in photographic technique won distinction. The fact is that a landscape is not so attractive as a story-telling picture, or one which appeals to the imagination. We generally see all there is in a landscape at one glance, and want nothing more to do with it. It is small credit to the photographer, even if well done, and to command much attention it must be wonderfully well done. A whole album full of such pictures is of little interest to anybody, save perhaps the man who took them. Take a look at some other fellow's album of landscapes and you will see the application. Send 20 or 30 of the best landscapes you possess to some competition and see how many you will get back unrecognized; then send that many of something with story telling significance and see how few come back.

Suppose the man who went out into the country had stayed at home. As he opened his door he overlooked the fact that a swarthy son of Italy was there grinding an organ and that several little children were dancing gracefully, making in all a most effective grouping and telling a story. For a dime the Italian would have put down his organ and sat beside it on a step, resting, lighting his pipe or counting his gain; and a most excellent model indeed he would have made, as nearly all his countrymen do. Before our friend left the house he might have taken one of his sisters as she came to meet the postman with a letter she evidently expected, and a little later he could have found her standing beside the window intent on reading it. Though he did not think enough of these opportunities to catch a story-telling picture of a remarkably pretty girl, almost any other man would have admired both poses and would have been interested in the pictures. In front of the stable the coachman was examining the teeth of a bull terrier he had just acquired, and as he eyed his purchase critically he could have been snapped to excellent advantage. A dark hued Southern mammy sat on the back porch paring potatoes, and many of her unconscious poses were excellent. Then our friend might have gone to the front again and been just in time to get a snap of a pretty girl descending from her carriage to call on his sister, and standing with one foot on the carriage step giving her driver instructions. After that he could have got a good picture, after the J. G. Brown style, of 2 street gamins fighting, surrounded by a dozen others who were highly excited and interested. Shortly afterward he could have snapped a game of craps they indulged in; and, being through with that, he could have done effective work with any of the crowd as a model.

This is a small part of what he could have done and secured pictures that would command attention. Charity and photography are alike in one respect: it is well to begin them at home. If one feels that he must have a chance at somebody's $500 photographic picture competition, he must not think that if he could only get the mountains of Colorado, the big trees of the Yosemite, the shores of the ocean or a sublime view from an elevation he would win. No, indeed; far-away fields look green because they are far away, not because they are better or as good as what we often scorn right at our door. If a good picture of the Garden of Eden were hung in one of the best competitions or exhibitions it wouldn't have a chance against a fair illustration of an old song the first lines of which are:

"The prettiest gal I ever saw
Was sucking cider through a straw,"

because the large majority of people like story-telling pictures, and don't like pure landscape.

Have something doing in all the photographs taken, and don't forget that the nearer home this work is done the greater the advantage, for there the artist and his camera will be no new new thing and few poses will be strained or unnatural.

Anyone who perceives the idea and uses his plates or films on *genre* work instead of on conventional landscape will soon find where the advantage is, and he will also have the gratification of hearing himself spoken of as one who is artistic and successful. Remember that the same plate that will take a bit of commonplace woods or a mountain will also take as stirring and admirable picture as the old "Spirit of '76." By your deeds shall you be known.

RECREATION CIRCULATING ALBUM.

It has occurred to me that a circulating album would be a good feature for the

camera department of RECREATION, *i.e.*, to have subscribers send in one print each, of a uniform size, with full particulars regarding it, print to be of same class as those entered in your competitions or otherwise. not to have been published or entered in any contest, and to give full particulars as to camera, lens, stop, plate, exposure, paper, etc. When all prints are in, say 100, mount in substantial, light weight album. Album then to be started on rounds from one member to another, each to pay the postage to the next, which would not be over 10 cents on a 100 page 4x5 album, and to keep the album not over 2 nights. The oute sheet should be written up by adjoining States. This would not take so long as if the "first come, first served" plan should be followed.

If satisfactory to you I would be willing to conduct this album; *i.e.*, the prints could be sent to me. I would write up a key to be mailed separately, also a route sheet, and would attend to any necessary correspondence. For doing this I should expect to keep the album after it had gone the rounds. Of course it would be somewhat soiled and worn. If you would prefer to attend to the album at your office I should be glad to contribute a print, and you could put me last on the route sheet.

H. R. Pfaff, Jennings, Ala.

ANSWER.

We will consider Mr. Pfaff's proposition as having been settled upon, with this condition: that each person contributing to the album shall send 2 prints, in order that a duplicate album may be made, for use in case the original shall be lost.

All readers of RECREATION who are amateur photographers are requested to send Mr. Pfaff 2 prints from one of the best negatives.

RECREATION will furnish the album, and as soon as the route is made up for a single State, it will be printed in the photo department of RECREATION. Any suggestions which readers of RECREATION may see fit to offer will be gladly accepted, and if found of interest will be printed in this department.—EDITOR.

TO COLOR PRINTS RED.

How can I get purple or reddish tones on Solio paper?

Lauritz Smith, Moscow, Idaho.

ANSWER.

To get purple tones on Solio, wash the prints thoroughly before toning, then tone in a bath made by adding to one grain of gold in solution, enough borax to make it a trifle alkaline. To this add 8 ounces of water. When toned, throw the prints in water having a teaspoonful of salt to the pint, rinse and fix. Reddish tones will appear first, then purple. For reddish browns add 10 grains acetate of soda. If you want an out and out red, following is the latest German formula for a red that will set your clothes on fire:

Ammonium sulphocyanide	5 grains
Iodide of potassium	½ to 1½ grains
Chloride of gold solution (1:100)	25 cubic centimeters
Water	1 liter

The pictures should be a little overprinted, and washed a few minutes in 2 or 3 changes of water before toning. If the small quantity of iodide of potassium, as given in the formula, is used, the time of toning will take one to 2 hours; but with the maximum quantity not more than 20 minutes. The toning is carried until the deeper parts of the picture show a carmine red color. The reversed side of the print becomes gray blue in this bath, but this disappears entirely in the fixing bath. The fixing bath is applied in the normal way. The carmine red tone remains unchanged in the fixing bath. The print increases in strength during drying. Pictures which become too strong, can be reduced again by application of a weak bath of iodide and cyanide of potassium solution. The toning bath with iodide of potassium acts best in a fresh condition. It should be used only once.

TO DEVELOP FILMS.

What is the best developer for snap shots that are slightly under exposed? Is pyro more liable to stain films than plates? Can films that are several months old be intensified? What would you recommend as an intensifying agent?

J. H. Wood, Stonyford, N. Y.

ANSWER.

A weak pyro or ortol developer is best for under exposed snap shots. Make it up to normal strength, then add 2 ounces more of water to each 4 ounces of developer. This requires patience, but it gives far the best results. Many think that since the plate had a short exposure the strongest kind of developer should be used so as to bring up all detail. This is wrong. Weak developer affords the most detail and the best printing negatives.

Pyro stains films with identically the same avidity that it does plates. I do not notice any more stain on films than on plates. You should not worry about the stain as it often is the salvation of a thin, weak negative. If one has a good, vigorous negative and the pyro stain is left in, it will be too harsh. You should use a dram of saturated solution of tartaric acid in 8 ounces of water and soak the plate, after fixing in it until all stain is removed.

Old films can be intensified. You can get a good intensifier named Agfa, at the photographic stock houses. It is made by a German firm. EDITOR.

SEVERAL ANSWERS.

I have just received a No. 4 Poco camera. It is the proper size for all amateurs although a picture of this size can be taken with a larger camera. I have been using a smaller camera, but am now satisfied that I am making better pictures for less money. I use eikonogin developer. It develops thin negatives. What is the cause? Please tell me what developer to use for making flashlights. What is the necessary charge of flashlight powder to use in a room 12 by 18 feet? Have you formed any camera club yet?

M. E. Armstrong, Le Roy, Minn.

ANSWER.

Eikonogen gives good detail, but not enough density as a rule. I should certainly use ¼ as much hydroquinone with it as the quantity of eikonogen. Even then the pyro developer advised by the maker of your plates is best. Pyro beats everything and if it does stain the fingers a trifle one can avoid it by using rubber finger tips, which are inexpensive and satisfactory.

Twelve feet away from your subject you may use 60 grains of flashlight powder if you stop the lens way down. With a large stop 40 grains are enough. Two Eastman's flash sheets will serve, also, and these are cleanly and efficient. EDITOR.

MOUNT PRINTS DRY.

Make a thin solution of pure white glue and brush it over the card in the place where the print is to go. Lay the print on the card and rub down with your thumb, dry, starting at the centre and working out. When near the edge lay an old negative on the print and then lay a weight on to hold it down until you get another print ready. In this way a large number may be mounted in a short time. Do not put on too much glue or the face of the print will get sticky. There will be no curling of prints on the edges, and the cards do not warp as if mounted wet.

To polish glossy prints take some old negatives and clean off the backs as much as possible. Rub the negative with a piece of wax candle sufficiently to cover the plate, or to cover any dirt that may not come off. Rub well with a piece of cloth, then lay the wet print face down on the glass, rub down tight, press out all surplus water and air, and let it dry thoroughly. Prints dried in this manner have a beautiful polish and will not stick to the glass. The prints, while on the glass, may be brushed over on the back with a thin solution of white glue and then mounted directly on the card, first moistening the card so it will stick.—A. MCLEAN in The Camera and Dark Room.

PYRO DEVELOPER.

In November RECREATION an item reprinted from The Professional and Amateur Photographer gave the following formula for pyro developer:

Water	64	ounces
Carbonate potash	2½	ounces
Sulphite of soda crystals (hydrometer test 40)	10	ounces

This solution to be used with 16 grains of dry pyro.

In making up this my druggist says the whole solution, water, potash and sulphite of soda crystals, should test 40 by hydrometer. I thought it meant that the sulphite of soda crystals, 10 ounces, fluid, should test 40 by hydrometer. The latter construction requires much less of the sulphite of soda crystals than 10 ounces by weight. Which is right? I like the articles on photography and enclose $1 for renewal of the subscription of Geo. B. Hopson, my son.

C. R. Hopson, Elgin, Ill.

ANSWER.

The druggist is correct. The whole solution should test 40; but still better, the sulphite should test 60 and the carbonate of potash 40. Pyro seems to be greatly in excess for ordinary use if not diluted.—EDITOR.

CHEAP TRAYS.

Your photo department in RECREATION is more and more interesting every month. With the kindness you show us amateurs I do not know why we do not make the department as interesting as the gun cranks make their side of the house. Surely they depend on us for views.

Let me suggest a cheap tray for all purposes. I have been using them some months. Line with white oilcloth a box the size you wish the tray. I am using old plate boxes for rinsing trays. For developer use smaller boxes. Tack the oilcloth all around on the top of the sides and ends. Fit the oilcloth down in the corners nicely before tacking and it will stay all right. Do not tack it down in the bottom nor cut the corners down any, as then it will leak. I got 2 yards of white oilcloth and have made 5 large trays and a number of small ones at a cost of 50 cents for the lot. I need some large trays as some of my prints are 7 by 15 inches.

Do any readers of RECREATION care to exchange views? I can furnish some fine mountain views, mining scenes, etc. I wish to get a collection of views if I can.

C. N. Truman, Ouray, Colo.

FLASHLIGHT POWDER.

Kindly publish in RECREATION a recipe for making flashlight powder.

R. Lindsay MacAdan,
Westmount, Montreal, Can.

ANSWER.

Many journals refuse to give formulæ for flashlight powders on account of the danger incurred in compounding them. If you must make your own try any of the following, but grind each chemical separately and mix on a blotter with a wooden implement. A spark would end your earthly career, or would maim you and probably blind you.

Powdered magnesium, dry, 1 part bulk; powdered permanganate of Potash, 1 part bulk. Use any convenient measure, say a small pill box.

Magnesium powder, 3 parts; antimony sulphide, 1 part; chlorate of potash, 6 parts.

Coat sheets of thin celluloid with dextrine paste and sift pure magnesium on both sides. Pin on a board, when dry, and burn. A 4-inch square burns about 2 seconds. This is much the safest of all.

TONING BATH FOR SOLIO.

I saw in September, 1901, RECREATION, an article in the department of Amateur Photography, by Edward W. Newcomb, as to a toning bath for Solio paper. I use Sun paper, which works the same as Solio, and have tried this bath. I am pleased with the tone, but I have trouble with a yellow stain, which comes on some of the prints. Some of them stain when I put them in, while others stain when the solution is moved a little. I thought it might be the paper, but I tried Solio with the same results. I enclose print to show what I mean by the stain. Will you please tell me, if possible, what causes this stain, and how I can prevent it. I find RECREATION a great help to me.

Alfred S. Griffiths, Amityville, N. Y.

ANSWER.

If you will wash your prints a little longer before toning and keep them submerged in the hypo all the time they are fixing, turning each one over and over, your difficulties will vanish. EDITOR.

URANIUM TONING.

In December RECREATION in your amateur photo department "Uranium Toning of Bromide Prints" is not clear Possibly some lines have been omitted as no mention in the formula is made of uranium nitrate, which presumably is the active toning agent used. I am always greatly interested in this department and have clippings from RECREATION for some years back, arranged in the form of an indexed reference book. I should like to try this uranium process. Will you not correct the article mentioned?

Edwin O. Torbohm, New York City.

ANSWER.

The only difficulty with the formula given is due to a misprint. For nitrate of ammonia read nitrate of uranium. The formula will then work. I can supply you with formulae for toning bromides or Velox prints to a number of colors.

EDITOR.

NEGATIVE VARNISH.

Please give me formula for negative varnish, and oblige Mrs. E. E. Lawrence,
Token Creek, Wis.

ANSWER.

Following are 3 good formulæ:

Place in a flask 95 per cent. alcohol, 1 quart; white stick lac, 3 ounces; picked sandarac, 3 drams. Place flask in warm water and leave till solids dissolve. Filter through absorbent cotton and bottle for use.

1 ounce bleached shellac; benzoin gum, 3 drams; juniper gum, 1 dram; soda borax, 1 dram. Powder and dry them, dissolve in 95 per cent. alcohol to proper consistency and filter.

The foregoing both require that the plate be slightly warmed before applying.

A formula which can be used on a cold plate is: Alcohol, 95 per cent, 1 ounce; gum thus, 10 grains; gum sandarac, 15 grains. Dissolve and filter through sponge.

SNAP SHOTS.

Should like to hear of the experience of others with E. W. Newcomb's spotting medium. I got a box of it, but it seemed full of grit and left small black specks on the print. It was dry and .hard, and I moistened it with glycerine, but that did not help it much. I use India ink for my spotting, but it does not fill the bill as something else ought to.

A. H. Middleswart, Portland, Ohio.

ANSWER.

Newcomb's spotting medium is giving perfect satisfaction to all users who understand it. Mr. Newcomb can supply you with further directions if you fail to understand the method of using the medium, and, furthermore, will give you another box if yours is at all unsatisfactory. Scrape a little loose with a knife, fill the brush full, work it into the brush on a smooth surface, and the brush is then good for 2 weeks' or a month's use without further filling by merely wetting it at the lips.—EDITOR.

The print of willow ptarmigan on nest I consider a striking illustration of the habit of the bird in selecting a nesting place where its color places it in almost perfect security by harmony with its surroundings. I discovered this nest by looking for a loose rock to mark a spot where a pair of snow birds were building. I was on the point of putting my hand on the bird when I saw what it was. I then put up a mark and located nest 3 paces and one foot due South from mark. When I returned with camera I took the 3 paces, looked for some time, and was on the point of stepping over the nest when I saw the bird within a foot of where I was standing. My camera is a Wizard.

Evan Lewis, Idaho Springs, Colo.

See reproduction of this photo on page 178.—EDITOR.

Will you please state the formula for making pictures on cloth. I should like to have also formula for fixing and toning glossy and platino papers. I find RECREATION useful and instructive.

W. F. Dubreuil, Island Pond, Vt.

ANSWER.

For printing on cloth use Martin's solutions which are to be had of E. & H. T. Anthony & Co., 120 5th Ave., New York City. If a blue is wanted, use Newcomb's blue print tubes, to be had of E. W. Newcomb, Bible House, New York City.

Your query as to toning glossy prints is best answered in an article on that subject in a recent number of RECREATION.

EDITOR.

Is it hard to enlarge with bromide paper? Will you tell me how to work it and what kind to use? I should like to correspond with someone in the Western States who has used a camera and has done his own finishing.

C. A. Wilkins, Claremont, N. H.

ANSWER.

It is not hard to enlarge with bromide paper. You would better buy a 25 cent book on this subject, as it is impossible to give you all necessary details in this department. Send to Tennant & Ward, 287 Fourth avenue, New York City, for a copy of "Photo Miniature," which treats on the subject.—EDITOR.

I have seen troubles like those of H. L. P., of Bath, Me., caused by neglecting to rinse the developer out of plate before fixing, irrespective of plate or strength of fixing bath. To illustrate, take pyrocatichin and caustic soda and carry plate direct from developer to a new fixing bath, either weak or strong. The bath will fix one or more plates and will then rapidly deteriorate, even refusing to work and thus spoiling the plate. However, if a new bath is made up, other plates developed and thoroughly rinsed, it will be found to fix all right.

C. E. Pearl, M. D., North Bangor, N. Y.

I have been a constant reader of your excellent magazine since September last, and have taken many joyful hunting and other invigorating trips by simply reading the stories in it. I noticed in the September number, F. Goodrick's and in December O. H. Hill's statements about forming a great camera club of readers of RECREATION who are interested in photography. This is a wise suggestion. I earnestly hope that all amateurs will pay attention to this and form a club as soon as possible. What do the amateur photographers say?

Louis R. Murray, Ogdensburg, N. Y.

Negatives that have to be preserved any great length of time should be subjected to double fixing. It is not sufficient to trust to a single fixing bath, and there is nothing gained by making it of more than ordinary strength. By removing the plate to a fresh bath of same strength, after all trace of chloride of silver has disappeared, and from the film in the first, complete disintegration of the particles of dissolved silver is arrested. Plates so fixed, and well washed, will keep in perfect condition as long as may be desired.—The Camera and Dark Room.

In framing pictures, *passe partout* style or otherwise, the effect is often improved by the use of a suitably tinted cut-out mat. Mount the pictures on any piece of card board, then cut the desired opening in the selected mat paper with a penknife and a glass-cutting shape. This mat can then be attached to the print by a few touches of gum around the edges.—The Camera and Dark Room.

To mark trays in photographic work I have used the simple method of filing notches on the edges, and I find that in this way no one could make a mistake.

Geo. M. Ockford, Jr., Ridgewood, N. J.

Are you saving your photo prints? If not, begin at once. Send me 2 yearly subscriptions to RECREATION, at $1 each, and I will send you a Buechner album that will hold 100 4 x 5 prints. It will be of great value to you in showing the progress you make in your photography, from the first page to the last, and your prints will always recall interesting memories.

SHE CAME AND SAT DOWN IN FRONT OF MY SHELF.

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RECREATION

Volume XVI. APRIL, 1902. Number 4.

G. O. SHIELDS (COQUINA), Editor and Manager

THE HUNTED HUNTER.

J. W. HULSE.

Our sheep camps were 40 or 50 miles South of Bent's old fort, on the Arkansas river. The country was broken and cut up with canyons. For sportsmen it was indeed a happy hunting ground. Every fall the great migratory buffalo herd, after crossing the Arkansas, would spread out *en route* to the Canadian country and the *Llano Estacado*, or staked plains. Countless numbers of antelope, mule deer and Virginia deer, a few elk and bear, wild turkeys and sage hens furnished unlimited sport, as well as meat, for the herders. The sheep were divided into several herds, one of which was visited each day. Returning from one of my daily tramps, I was walking through a large canyon from which smaller ones opened out on either side. When within a short distance of the home camp a fair sized mule buck broke cover from a bunch of willows almost within reach of my gun, and so startled me I did not think of shooting until he disappeared into a side canyon about 100 yards ahead. Walking along leisurely until I reached the mouth of the canyon, I saw my deer within easy range, and dropped him with a bullet just back of the shoulders, but as I approached he sprang to his feet and ran on and around a bend. I followed and found him apparently dead; so I took off my cartridge belt, drew my knife from the scabbard and hung the belt over the muzzle of my rifle, which I leaned against the rocks. When I started to bleed the buck he struggled to his feet again, to my great astonishment, and moved on 25 or 30 yards before he fell. While he was breathing his last I looked around and discovered that the canyon was a box, or blind one, the only outlet being the inlet. I wiped my knife and was cutting some tobacco for a smoke, when a noise behind me caused me to look around, and there, alongside of my rifle, was an old grizzly, standing on her hind legs and eagerly sniffing toward the fresh meat. She was not so large as Jumbo, yet at the moment she looked as if she nearly filled the canyon, which was over 20 yards wide. I had read of combats between men armed only with a knife and bears of all species, but no such plan entered my mind. A vision of a ladder flashed through my brain, and a good many other thoughts as well. It seemed quite a time, yet I really had but a few seconds to study the situation before the bear started for me, and I for the end of the canyon, about 30 yards distant. As I ran toward the perpendicular wall I saw a ledge projecting out, about 10 feet from the ground. I leaped for it and caught it, but my fingers slipped and down I went. I tried again and missed, but the third time I succeeded in getting a firm hold and scrambling up on the shelf, which was about a foot wide and 3 or 4 feet long, sloping upward. I could not have climbed it had I not worn moccasins, which enabled me to get a toe hold in a crevice. As I

made the last jump I fancied I could feel the hot breath of the bear on the back of my neck, yet when my position was firm enough so I could look around she was some yards distant, and had stopped. She was evidently very hungry, for after a warning growl she turned back to the meat, took up a ham and commenced her meal. After eating rapidly a while she looked around at me, then ate more leisurely, first from one piece, then from another, until she was satisfied. After that she came and sat down in front of my shelf, licking her paws, looking at me and, I suppose, laughing at my predicament, while I was getting madder every minute. My position was extremely uncomfortable, my fingers and knee having been bruised in climbing. In fact, I had a burning desire to go home and smoke my pipe by the camp fire. There was no such thing as getting up any higher, so I had to grin and bear it. Finally my jailer started slowly away, smelling at the gun as she passed it. As soon as she turned the bend I tumbled down, but both legs were numb, so for a few moments I could not walk. I managed to get to the gun and buckle on the belt, and in a short time reached the mouth of the canyon. There, not more than 50 yards away, was Mrs. Bruin, drinking from a little spring. I could not repress a shout of exultation, at which she looked up, but before she could move from her tracks a bullet from my old Springfield went crashing through her neck at the base of the brain and her foraging days were over. In skinning her I found a bullet embedded under the hide next to the ribs on the right side. It was from a carbine and but slightly battered. After looking her over when dead she did not appear more than half so large as on first view. I have seen several much larger bears since.

THE VALLEY OF FORGETFULNESS.

E. H. BUTLER.

Oft in the silence of the midnight hour,
I dream of mystic vales that spread between
Our dusty journeys; or the pleasant green
Of little islands, fresh with shade and shower.
What of the weary ways, if in thy bower
With thee in solitude I lie unseen,
And dream of that which is, or ne'er has been;
Alike fantastic figments of thy power.
Love, let us hasten from the traveled ways
Which men call Life, across the dreamy dew
Of fields forgotten, where the robins sing;
Till in the breaths of sweet, narcotic haze
I find the Lethe, and forget with you
Our many weary miles of wandering.

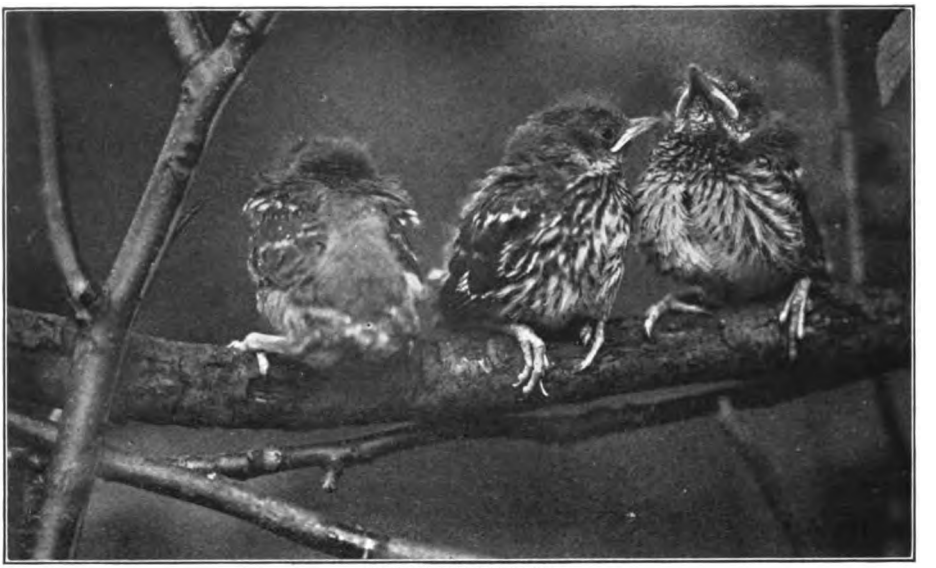
NESTING TIME.

ANNA M. MATTHEWS.
Photos by the Author.

To the amateur photographer living in a large city the study of bird nature would appear limited to observing the habits of the unpopular English sparrow, and, if near a large body of water, of gulls. He knows that the more venturesome birds may be found in parks, and he may have read that in the great parks of New York City a bird lover has identified more than 120 species. But that a great variety of birds common to the latitude may be found just outside the city, where, undisturbed by the attention of the curious, he may use opera glass and camera, is not fully appreciated by snap-shotters, nor even by those who attempt more serious work with tripod and time.

While all amateurs may not find it desirable to equip themselves with the full paraphernalia of the bird photographer, yet much may be accomplished in leisure hours or short vacations with no other outfit than a camera with a fairly good lens, a stout tripod and an opera glass. Even if the artistic results are not altogether gratifying, the contact with nature as a physical and psychic tonic will produce marked results. Less than a mile from Chicago is a

NEST OF THRUSH.



YOUNG THRUSHES.

practically unoccupied territory, including meadow and field and terminating in a strip of woodland along the Desplaines river. Being a little removed from the straggling suburban residences this meadow and woodland are favorite resorts for birds.

In the latter part of February, 1901, the first robins appeared in a clump of trees in the meadow, and about the first of March a pair of song sparrows and a pair of

YOUNG CUCKOOS IN NEST ON HAWTHORN BRANCH.

meadow larks arrived. The delight of finding those early visitors amply rewarded a tramp through the snow-covered fields and made the results of an unlucky venture on thin ice seem of little consequence.

During the last week of April and the first week of May the warblers arrived. After 2 to 3 weeks most of them sped Northward. Before the middle of June we had with us for the summer the 3 early comers already mentioned and the horned lark, brown thrush, wood thrush, catbird, redheaded woodpecker, golden-winged woodpecker, yellow-billed cuckoo, red-winged blackbird, purple grackle, cowbird, tanager, oriole, kingfisher, flycatcher, shrike, indigo, bunting, dickcissel, phoebe, bluebird, lark finch, goldfinch, pewee, rose-breasted grosbeak, humming bird, turtle dove, upland plover, woodcock, sandpiper and numerous species of the bunting, sparrow and finch families.

Even desultory observation convinces one that the hardship endured by birds in their domestic aspirations is great. Only a small per cent. of eggs laid are hatched; the greater number falling a prey to snakes, birds and boys. Of the small number hatched comparatively few reach maturity, for added to the destroyers of eggs are the birds of prey and the prowling cat.

The robin, the most numerous and familiar of the birds in this vicinity, the English sparrow excepted, builds too high for the amateur who is not an expert climber. While the bird is brooding the telephoto may be used to advantage. Any active lad will gladly lend his aid in removing the fledglings from the nest just before they are ready for flight. They may be allowed to run on the ground until weary, and with their awkward gait and untried muscles they soon tire. Then perched on a branch or a stick they may be photographed. The parent birds will, of course, manifest much uneasiness during the process, but on the young birds being safely returned to the nest, the distressed cries of the parents cease, and the confidence of the robin in her big human brothers is doubtless augmented.

NEST OF MEADOW LARK.

The nests of the thrush and the catbird, being built in low trees and shrubs, are easily accessible. Little difficulty is experienced in finding the nest of a thrush, as before or while she is brooding a slight alarm causes her to leave the nest and hover near its place of concealment, repeating her sharp cry of warning. She

is more discreet, however, after the young are hatched, and avoids discovery by quietly slipping from the nest and stealing away among the leaves and grass. The persistency of the thrush and its lack of discretion were shown by a pair whose domestic joys and discomforts were watched with much interest. The first nest of the pair was lodged in the crotch of a wild plum tree about 6 feet above the ground. The bird when discovered was brooding. A subsequent visit showed the nest robbed and the pair busily building another a few feet from the first and in a more exposed location. By some meddlesome visitor the second nest was destroyed. A third was immediately constructed on the same branch as the second, a little nearer the trunk of the tree, but no less exposed. As a reward of persistency a sturdy brood was graduated from the third nest.

A nest from which 3 young birds were taken was about 4 feet from the ground, loosely constructed of twigs and grass in a tangle of hazel and wild honeysuckle. The removal of the birds brought both parents screaming and dashing viciously at the intruder. One little fellow was left cowering in the nest. When the 3 were returned it was found that the fourth had scrambled from his place of safety and disappeared. Although a careful search was made he could not be found. I consoled myself with the thought that, when quiet was restored and he ventured from his place of hiding, his cries of hunger would bring response from the parent birds.

Still another thrush's nest was found in a mass of dead branches lying on the ground, canopied by a wild grape vine. It contained 4 pale speckled eggs one day, but on the next an empty nest gave evidence of a visit from boy, bird of prey or snake. Another nest of the same bird, built in a gooseberry bush against the trunk of a large tree, met the same fate.

A familiar friend, and one whose song rivals that of the thrush, is the catbird. In spite of her seeming friendliness at other times, she becomes shy when her nest is approached.

The yellow-billed cuckoo makes her home in places similar to those selected by the thrush and catbird, although the nest is sometimes higher above the ground and often near a stream. The nest is crude, consisting of coarse twigs, loosely placed on the branch of a tree. The only cuckoo's nest I found last season in the strip of woodland to which my nest hunting was confined was on a low branch of a hawthorn tree and well concealed by leaves and

NEST OF DICKCISSEL CONTAINING EGGS OF COWBIRD.

NEST OF LARK FINCH.

blossoms. When discovered the bird sat quietly on the nest for a time, making close observation possible. Unfortunately the camera was not at hand. The next day a cautious approach sent her flying from the nest. Nor would she return while the nest was watched, although her 2 meagerly clothed fledglings wailed with hunger. Because so difficult to find and so curiously constructed, the discovery of the nest of the meadow lark is always gratifying. The first one of the season I found in a tall tuft of grass near the corner of an unused lot, and but a few steps from the cropped grass of the golf links. What appeared a small collection of withered grass in the green turf proved the beginning of a tunnel 8 inches long and 3 in diameter, at the inner end of which was the carefully constructed nest containing 5 speckled eggs. This proximity to civilization met with the usual disastrous result of misplaced confidence. A day or 2 later eggs and nest had disappeared. Luckily for birds their mourning is of short duration, and the absorbing activity of constructing a new nest soon fills them with a sense of domestic felicity.

Early in May the male bobolinks, with black coat splashed with white and buff, and cap of yellow, take possession of our meadow and impatiently await the coming of their modest-colored partners. The nest of the bobolink is on the ground. A slight hollow is made at the root of a bunch of weeds or tall grass and thinly lined with dry grass. In this simple nest are placed 6 or more whitish, brown speckled eggs. On being disturbed or warned of danger the female leaves her nest by silently creeping through the grass to a safe distance, then rising abruptly as if for the first time aware of the intruder's approach. Thus to locate the nest a circuit of considerable extent must be examined.

One of the cheeriest and most welcome of the summer visitors is a small, grayish colored bunting whose "Dick-cissel-cissel" resounds on every side. The nest is usually secreted in a tall, swaying growth of weeds. It is frequently used by the cowbird as a repository for one of her eggs, the mottled brown of which contrasts strangely with the delicate blue of the small egg of the dickcissel. Unlike most birds in this vicinity the dickcissel forsakes her nest if its surroundings are disturbed.

The most delicately constructed ground nest I found was that of a lark finch, snugly located close to the root of a bunch of weeds, protected by an overhanging nettle and twist of wild morning-glory vine.

One of the most improbable places for a nest was that selected by a pair of bluebirds. It was in an erect iron cylinder about 4 feet high and 5 inches in diameter. The young birds remained in the nest until able to fly. Then, one by one, assisted by the mother bird, they scrambled to the top of the cylinder and took refuge in the branches near.

The familiar call and resounding tap-

ping of the woodpecker announced his arrival early in May. It is strange that with so many trees to choose from the redheaded woodpecker frequently selects telephone and electric poles as nesting places. The golden-winged woodpeckers,

YOUNG GOLDEN-WINGED WOODPECKERS.

however, almost invariably select trees in accessible localities.

Because of the merciless slaughter by sportsmen the woodcock is becoming a rare bird, and for that reason the discovery of a pair in our woodland afforded keen delight. When searching for thrushes' nests in May I came suddenly on a fine male woodcock in the shelter of some hazel near the edge of a grassy marsh. Although less than 5 feet distant the beautiful creature seemed to consider himself unobserved and remained motionless. His coat of golden brown, long, graceful bill and large brilliant eyes fascinated me. In about 2 minutes he moved off, quietly creeping over and under fallen twigs and branches. On a slight noise near at hand he rose with characteristic whir and disappeared beyond the trees.

Among other birds which are disappearing is the upland or field plover. Being a delicate morsel for the epicure, the species is well nigh extinct. However, a ramble across the meadow resulted in seeing a female plover rise from the tall grass, and with a continuous succession of sharp notes fly about in a seemingly distracted manner. Back and forth and around she flew, occasionally alighting in the grass, only to rise again and flutter away in an opposite direction. Diligent search failed to discover her nest, which she carefully hides after the manner of the meadow lark.

While searching for the plover's nest I was highly amused by the temerity manifested by 2 young crows. Proud of their newly acquired ability to fly, and not yet having learned that mankind in general is the enemy of the crow, they came flapping over me not 20 feet in air. They were met by the mother crow, whose voice

YOUNG FLICKERS.

sounded harsh as she reproved their foolish adventure. The speed of the 2 innocents was quickly accelerated and they were soon high in air, speeding toward a place of safety.

In calling attention to some of the feathered inhabitants of those few acres I have no thought that the locality is specially favored, overrun as it is by children, picnickers and golfers. On the contrary, I am convinced that on the outskirts of any large city many more species than those recorded may be found. Only the large and more familiar birds have been named, those whose nests are easily found. If the observer be ambitious he will find ample employment for the leisure hours of more than one summer vacation in following, field glass in hand, the great variety of sparrows, buntings and warblers, whose coats so perfectly harmonize with the colors of leaf and bark, and whose small bodies may be hidden by a maple leaf.

WHIP-POOR-WILL.

IMO L. STOUT.

The poem entitled "Whip-poor-will," in July RECREATION, brings up old memories, and I enclose a poem under the same caption which was written by a sister on her sick bed a short time before her death, 9 years ago. She was then 16. M. G. Stout, Mackinaw, Ill.

Mid-April has come, and I list for a call,
In the soft, hazy gloaming so still;
And I wait for the voice of a friend that I love—
The song of the blithe whip-poor-will.

A sound from the thicket—I listen again—
Oh, joy! and my heart seems to thrill
With an ecstasy sweet, as I hear the glad notes,
"Whip-poor-will! whip-poor-will! whip-poor-will!"

So loud and so clear, yet so earnest and true—
Art thou calling thy love from the hill?
Yet call once again, a reply will soon come,
Now hearken, and hear "Whip-poor-will!"

The months pass away, and my joy is complete;
For each evening, o'er treetop and rill,
When the sun has gone down, there comes ever the song
Of the brave, cheery-voiced whip-poor-will.

But the autumn comes on, thy refrain seems more sad,
As a plaintive note sounds in its trill;
And the call that now comes from thy mate on the tree
Is sweet as she sings "Whip-poor-will!"

Ah, I know of the treasures you cherished so true,
In the nest at the foot of the hill.
Now you wait and you dream as we poor mortals do,
When we list for a voice that is still.

For your birdlings have flown, while your lonely hearts ache,
And your song on the night air so chill,
Sounds mournfully sweet, as you answer and call
"Whip-poor-will! whip-poor-will! whip-poor-will!"

My own yearning heart will cry out when you're gone,
For with music its depths you did fill;
And the hours will seem long, as I listen in vain
For your sweet "Whip-poor-will! whip-poor-will!"

But when spring comes again, may your voices be heard
Through the blossoming valley so still;
And may hearts be made glad as they welcome your song,
"Whip-poor-will! whip-poor-will! whip-poor-will!"

AMATEUR PHOTO BY H. G. HIGBEE.

MEDDLING WITH DANGER.
Winner of 16th Prize in RECREATION'S 6th Annual Photo Competition.
(See page 327.)

AMATEUR PHOTO BY WARREN S. SHAW.

WHO COULD BE CRUEL ENOUGH TO KILL ME?

AN INCIDENT OF ANGLING.

J. T. HOPKINS.

"What manner of man he was his friends well knew; and even now, after years that he has been in hiding, their verdict, I am confident, would be in his favor."

"Then why should he remain under cover?" inquired Hobbs.

"Of that you shall presently know if you will be patient," continued the narrator. "In a comprehensive sense Jacob Zim came

LET'S LEARN MORE OF HIM.

as near being a true man as nature and habit can produce. Besides, he was a gentleman. It is well to keep that in mind."

"Married, was he?" asked Dobbs.

"Yes, married, and, as he would often say himself, 'more's the pity.'"

"Since you're speakin' of Zim, let's learn more of him," urged Hobbs.

"That is easy and will not take long in the telling," said the speaker, as intermingling clouds of smoke from the pipes of the trio went floating toward the ceiling of the farmhouse porch whose balustered rail afforded restful support for the 3 sets of legs. "In the mind's eye I can see Jacob now as plainly as though he were of our company. That distressed, browbeaten look is still there, which the poor fellow always bore from the time when he took unto himself a wife; his rainy day setting in only too soon after that event, and proving a prolonged wet spell, with contrary winds, rough weather and cutting hail."

"Then it was hail Columbia he acquired with the woman, wasn't it?" interposed Dobbs.

"That may be admitted," returned the speaker; "and while I appreciate the feeble wit of your observation, I should prefer to be interrupted less frequently. It was doubtless pardonable in Zim to regard matrimony, as he had come to know it, as the bane of his existence; the great unhealing sore place in a life that should otherwise have been a healthy one. The harness was a misfit, and the pull was heavy on an upgrade whose summit was never reached. That kind of sorrowful case where incompatibility of temperament between man and wife makes trouble. They were a mismated couple. Eyes that were on them soon discovered evidences of discontent. Shortly after their honeymoon, when the ring had not long encircled the alabaster finger, a tiny fissure in their matrimonial experience became a gulf, which divided them. She, a giddy thing, spoiled and pampered, unduly concerned in herself and in those inconsiderate frivolities which most delight women, had no toleration for his well conceived ideas of what real pleasures are. It is to be regretted that the pair were too often at cross-points. The many profitless vanities of life were to her most alluring; whereas he, of a different mould and tougher fibre, sought true and more rational enjoyment in the pursuit of a profession which with him did not fall much short of worship."

"Lawyer, was he?" queried Dobbs, becoming interested.

"I have an idea he was a doctor," speculated Hobbs.

"No, you are both wrong. Jacob Zim was an angler, and no better or more faithful ever tried a case at the bar of a 40-yard line. But, as I was saying, bad feeling was engendered between man and wife to remain and rankle. Unkind words were apt to slip the tongue, in which fault the woman was too often the aggressor. Do I tire you?"

"Not so much as our tramp of to-day did," answered the listeners.

"Jacob Zim was not brilliant, but he was

FRAU ZIM AGAIN UPBRAIDED HIM.

clever. Persistent and stubborn, enthusiastic, a good stayer and mixer, with fine sense and ripe judgment; a man who knew well that it is enjoyable and healthful to be out of doors when it is balmy, but prudent to go in when it rains. Yet, for all that, it was no uncommon thing for her to make light—nay, to make merry of his attainments; and one of her favorite remarks, which took the form of an accusation, was that he was not even capable of learning to boil water."

"I want to know!" exclaimed Dobbs.

"I will thank you to pass the tobacco," said Hobbs.

"Certainly; wasn't capable of learning, as if there should be any need of his trying to learn, when his mind was entirely preoccupied with matters more important. Versatile, as he was acknowledged to be, full of the love of his art, and quick in the solution of more intricate problems, he might easily have learned to boil water had he seen fit. But I come to his adventure.

"It was late in the afternoon of a September day, after Frau Zim had again upbraided him, that he went alone on foot to the brink of the river, the whirlpool of the Ohio, where that stream forms the Southern boundary of a tract of land granted to General George Rogers Clarke, whose rank and file induced the Indian to depart therefrom by the employment of tactics known to the soldier as the 'double quick.' It was not to fish that Jacob went on that stroll, but to ponder and forget. A small flatboat lay at the shore, one used in transporting workmen to and from the improvement of the channel at Wave Rock, a bad obstruction. Jacob boarded the flat and seated himself on the gunwale. He had not rested there long when he saw the outline of a fish near the surface of the water, which, in the twilight was not clearly made out as to variety, but was at least a 6-pounder, and Jake was spellbound.

"'In my porn days, alreatty, I haf never seen such a fine pass feesh like dot,'" said he.

"Whereupon the fish saw fit to correct him with the information that it wasn't a bass at all, but a German carp."

"Isn't Tom Pepper dead?" murmured Dobbs.

"The heavens weep, the sea moans, a tree will sigh; then why not a fish talk? I believe this story," confessed Hobbs.

"I thank you, gentlemen, for the faith you have in my veracity," observed the speaker, and he resumed: "Then Zim knew that indeed he had a sympathizing friend to whom he might reveal his woes. During their conversation Jacob felt that it was the first bit of real sympathy he had experienced in many a day. And so, employing German and English alternately, they talked on into the night, until the fish was forced by the lateness of the hour to

SIND SIE WEG VON IHREM WOHNORT?

hie away. As they were about to separate Jacob said,

"'Sind Sie weg von ihrem Wohnort; oder, im Fall sie keine Familie haben (und es weare vieleicht besser wenn sie keine haben) ist ihr Kosthaus nahe bei?'

"'Nein,' said the carp, 'gegenwaertig bin ich Wittwer. Ich streife herum wo es mir gefaellt aber meine Haupt mahlzeit nehme ich bei Butchertown eine kurze strecke oberhalb.'"

"Say, Johnson," said Dobbs, "can't you help us out with a translation of that lingo?"

"Well," explained the story teller, "Jacob asked the fish if he were far away from where he lived. In case he had no family, thinking it for the best if he had none, was the boarding house near, where he put up? To which the fish replied that he was a widower, browsing around almost anywhere, but taking his principal meals off Butchertown, a short distance up the river.

"As Jacob Zim trudged homeward he was overheard to say that he was glad he could neffer understant how to boil vater, and he would neffermore again in his lifetimes eat some boiled fish again alreatty."

"Where is your friend now?" inquired Hobbs.

"Well, that is my secret; but between ourselves, for *she* must not know, he wrote me from Cape Nome to say that while he was happier, and could kick gold out of the sands with the toe of his boot, yet he found women there, and he should have to move still farther away from that sex of civilization."

IN EXILE.

WARREN ADAMS.

In the eager world of fancy, which this moment seems so real
That sights and sounds of city fade and pale,
I can hear the blue grouse calling, I can hear the bull elk squeal;
I am weary, oh, so weary, for the trail!

Hear the creak of straining pack ropes; hear the patter of the hoofs,
Raising dust as chaff flies upward from the flail;
Feel the open heat of noonday; feel the cool of canvas roofs;
I am weary, oh, so weary, for the trail!

There are trout below the riffle, there are whitefish close beside,
And well I know the flies that most avail
To toll the great six-pounders from the depths where they abide.
I am weary, oh, so weary, for the trail!

See the level lines of sagebrush, smell its pleasant, bitter breath,
As it empties its aroma on the gale;
See the timid, saucy pronghorns—soon we'll flag them to their death.
I am weary, oh, so weary, for the trail!

Let me realize the fancy, let me make the dream come true
By the necromantic power of stage and rail;
Let me turn from humans Godward—it's the only thing to do
When a man has grown heart-weary for the trail.

A BEAR IN CAMP.

W. F. NICHOLS.

Some 3 miles Northeast of Steamboat Springs, Colo., there was, a few years ago, a beautiful body of pine timber, a famous resort for bear. In the spring of 1887 H. C. Monson and I having a contract to furnish the material and build a house in Steamboat, took our camp outfit, axes and guns, made our camp near a body of timber on a small tributary of Spring creek, and went to work chopping logs.

Our camp was within 8 or 10 feet of the little stream. There was no bank on that side, while on the opposite side was a perpendicular bank some 4 feet high, and then running up at an angle of about 35 degrees 75 or 80 yards farther on. While sitting in camp the first evening we saw, standing on the opposite side of the creek, a big buck. Monson seized his rifle and fired, striking the deer through the heart. In its dying struggles it rolled down the hill nearly to the bank of our little stream, leaving blood all the way. We dressed him and hung the meat on a small tree between our camp and the creek.

The following morning Monson got out before sunrise and went to the creek for a cup of water. He had stooped down, dipped up the water and begun to drink when he heard a growl, and on looking up saw on the bank above, looking down at him, about 10 feet away, a large black bear. It had found the bloody trail left by the deer, had followed it down to the bank, and was standing looking at the meat.

About that time I heard a coughing, strangling, choking sound out of which I made out "A bear in camp!" I sprang up like a jack in a box, and, although the air was cold and a heavy frost was on the ground I did not take time to dress, but caught up my rifle, threw a cartridge into the chamber and raised for a shot. By that time the bear had got away some 40 or 50 yards diagonally up the hill, and as he was disappearing in the low Sarvis bushes I fired. My bullet—a .40-60—struck him midway of the ham, passing through and lodging in the ribs.

Mr. Monson had all that time been industriously working at one of those detestable affairs, a canvas gun cover, in which he had his gun carefully buckled up, thereby losing a beautiful shot at about 50 feet. Having finally got his rifle out of the poke we bounded across the creek and ran to the top of the hill, but our game had given us the dodge. He was, however, killed a few days later by Mr. W. H. Dever, of Steamboat.

From the top of the hill we saw, about 200 yards to our left, a brown or hog bear coming directly toward us. We kept quiet until she came up within 75 yards of us, when we both fired. Mr. Monson's bullet hit her in the throat. Ranging back and downward, it passed through the ham and lodged under the skin, killing her instantly.

I drew Monson's attention to my airy costume, and although our hunt had not lasted more than 10 minutes I was thoroughly chilled. We adjourned to camp, where I dressed, while Monson prepared breakfast. After eating, we returned to the bear, disemboweled it, and took the trail of the big black fellow, which was easily followed by the blood.

We had gone about a mile when we came on 2 more brown bears, and got 4 or 5 shots at 150 yards. Thinking we had wounded one or both of them, we followed them a mile or 2, through rocks and fallen timber, when we lost the trail. Then we went back to camp and to chopping logs, disgusted with having killed but one bear out of 4 shot at, and all from short to mid-range.

Mr. Goops—Wasn't there some kind of a hitch about the wedding of Mr. Spooneigh and Miss Mooney?

Mr. Whoop—No; the groom did not show up, so there wasn't any hitch at all. —Baltimore American.

A SOUTHERN BEAR HUNT.

FRANK FARNER.

We had been in the woods, George and I, nearly 2 months, trapping, shooting, fishing and enjoying ourselves.

The larder had become depleted, except for the sprouty onions, and having tired of a diet of fish and game, we decided to strike camp and drop down the little stream to the great "Father of Waters," hoping to find a store-boat where we might procure supplies, or "Get a square."

Loading our equipment in the boat, a pull of 3 hours took us to the head of the Bayou, in which the stream had its source. At the end of the second day

MA NAME IS GABE THOMPSON.

we reached the Mississippi. George vowed he could smell biscuits less than 3 miles away, but we decided not to try to locate them in the dark, and were soon sitting by a blazing camp fire, enjoying a repast of wild duck, boiled, roasted and fried in catfish oil, with squirrel hash for dessert. In preparing the latter the onions were used. Then to a camp bed to be lulled to sleep by the night calls of woodland creatures.

The following morning we started early in search of those coveted biscuits and soon came to a settler's cabin, a typical log hut with outside chimney built of sticks and plastered with clay. In the yard, chopping, stood as black a man as I ever saw.

Having come upon him unawares, he was much startled at first, but soon recovering, stood a moment, ax in hand, scrutinizing us intently, then saluted us with a cheery, "Maw-nin, gem-men." We told him who we were, and not to be outdone in courtesy he said, "Mighty glad to see you-uns. Ma name is Gabe Thompson."

Then George asked if we could get a home-cooked meal; Gabe called "Clare!" and immediately there appeared at the doorway a perfect specimen of a colored "Mammy" followed by 4 children; the younger ones peeping at us from behind their mother's skirts.

Clare is worthy of passing notice. As she stood looking at us, after the usual "Maw-nin," I was impressed with her neat appearance. The homespun dress and apron were spotless, and the kinky hair was brushed back and held by a brightly colored kerchief tied in turban form. Her face beamed with good nature, though black and shiny.

When Clare learned our condition, with a woman's ready apology for "havin' nothin' fittin to eat," she "lowed she mote gib us suthin to stay us out till dinna, and den we'll hab a nice fat 'possum stuffed wid yams," and turning to Gabe she said, "Yo' kill an scall dat 'possum. We-uns done been feedin him long nuff." The fried salt pork and corn pone, with light white biscuits made of wheat flour, formed a breakfast to which we did ample justice.

After paying Clare "mos' too much faw sich a poo meal," we went out to Gabe, who had returned with the 'possum nicely cleaned and ready for the pan. We supplied him with a generous quantity of flat sweet store terbacker, and sat down on the wood pile to get better acquainted; as George cruelly remarked, to wait for dinner.

Gabe kept looking earnestly at my repeater. Noticing his deep interest, I showed him how it worked. He seemed lost in wonder, and remarked gravely,

"Dat is de lonesomes' gun I ever seen."

"How so, Gabe?" we asked.

"W'y jes' kase dey is no odder like it, an it nebber has no company."

He went on to say, "Ef you-uns want to hab heaps o' fun, I'll took yous ober to de big swamp. Dey am lots o' bar dar, an' I'd like to listen to dat gun crack an hyah one ob dem pig stealers squeal!"

Gabe was cute, he laid his plans well and they were certain to succeed. We were interested at once.

"You say there are lots of bear? How far is it to the big swamp? How can we go there? Don't we need dogs?" and other like questions were propounded. He answered about as follows:

"Wa'l de big swamp am 'bout 14 miles from hyar, an I'll took yo' obber wif Rosie; an' faw dawgs, dat little 'fice' dar, wif Major to go 'long, is de bes' bar dawg roun' dese parts."

A look at the lazy appearing dogs was not promising. "Dat fice" may have had the least particle of terrier, shepherd, or spitz blood in him, in fact, any other kind of very ordinary dog blood; and he may have been a thoroughbred of some kind on which I am not posted. Gabe said he was a good bear dog, and Gabe was honest and ought to know. Major was much larger, tawny yellow, and very sleepy. After looking at him carefully, I decided that he was just dog, and "nigger" dog at that, but Gabe had said that as a consort

WE WERE GETTING TO LOWER GROUND.

of the "fice" he was a perfect success, and Gabe was honest and ought to know.

Clare called "dinna," but I do not feel at liberty to say much about the meal, for the reader who has never enjoyed a "'possum and yam" dinner would hardly appreciate what I might say, and the one who had, would but be tormented by remembrance of it.

During the afternoon most of the time was devoted to getting ready for an early start for the swamp next morning. We packed a generous supply of food, ammunition, and other requisites, while Gabe went out to the cane brake in search of Rosie. He found her and brought her back with him. George said he was sorry Rosie and Gabe returned before dark, for a look at "dat mewl" and a thought of 14 miles through the woods "follerin' de 3 blaze trail" was, to say the least, discouraging.

Next morning, long "afore sun-up," we had Rosie tied and strapped to the wagon, and succeeded in getting her started. About noon we reached a little stream where we camped and had dinner. Then, by dint of pushing the wagon with all our force against Rosie, while Gabe pulled hard on the bridle, we got her started again.

The afternoon wore away without incident, beyond killing a fat wild turkey for supper.

I FOUND A HALF GROWN BEAR UP A SMALL TREE.

Night came and I asked Gabe if we were not near the swamp, but he had "nebber come dis heah way before, and didn't know zackly." We had traveled at least 20 miles in an air line, and not less than 30 counting detours around patches of cane, and other obstructions. We were tired and hungry, having walked the whole dis-

tance besides helping Rosie with her load at times. She was cursed with the proverbial mule disposition.

But when we had eaten our supper of turkey roasted in clay, we were perfectly contented, and would have been comfortable had we curbed our appetites. Next day was spent in the same way, in devious windings through the passes between trees. As the day wore away the timber became more dense, and there was a good deal of undergrowth, with here and there a giant cypress standing high upon its roots like a spider on its legs, indicating that we were getting to lower ground, and near the swamp. At nightfall Gabe said,

"Wal, we is right dar now, but de feller wat measured dem 14 miles must hab done it wif a coon skin an trowed in de tail."

We were soon sitting by a blazing fire, telling Gabe highly colored stories of camp life, planning our sortie into the swamp the following day, and wagering who would first succeed in killing a bear, when away off in the swamp we heard the angry bark of the dogs, followed by a perfect bedlam of yelps, both dogs barking as if fighting some animal. We were agreeably surprised that they showed such hunting qualities. As the sounds continued our faith in them rose, and when Gabe excitedly said, "Dats bah! I knows jes how dem dawgs talk," stock was at premium.

Grabbing our guns we plunged in the darkness into the swamp, guided by the sounds of conflict. Memory of that mile or more of travel, at one time in soft mud waist deep, next to be caught in the folds of a buckthorn vine that would only let go at the expense of patches of cuticle and swads of clothing, is certainly unpleasant. Yet we struggled on bravely as fast as possible, and slowly neared the scene of battle, still raging. As I anxiously peered through the darkness, down I went into a "lob-lolly" hole of unknown depth, from which I emerged just in time to hear Gabe say, "Lawd a'mighty! dats hogs."

My spirits fell, and I could not recover. We managed to get back to camp, and after scraping off some of the accumulated mud, lay down and were soon asleep.

In 4 days we were healed sufficiently to go home to Gabe's, which we did, starting early in the morning. As we journeyed monotonously along in the evening, the dogs pricked up their ears and with noses to the ground, set off trailing with loud yelps. I suggested following them, but George said he was "long on bacon," and declined. I went, determined to learn, if possible, what they had scented. They soon came to a stop, barking furiously. When I reached them imagine my surprise to find a half grown bear up a small gum tree. One shot brought him down, and I carried him back to the wagon.

As I sit in my den, his skin hanging on the wall pleads for Gabe, and I really think I have forgiven him.

AMATEUR PHOTO BY O. P. MOORE

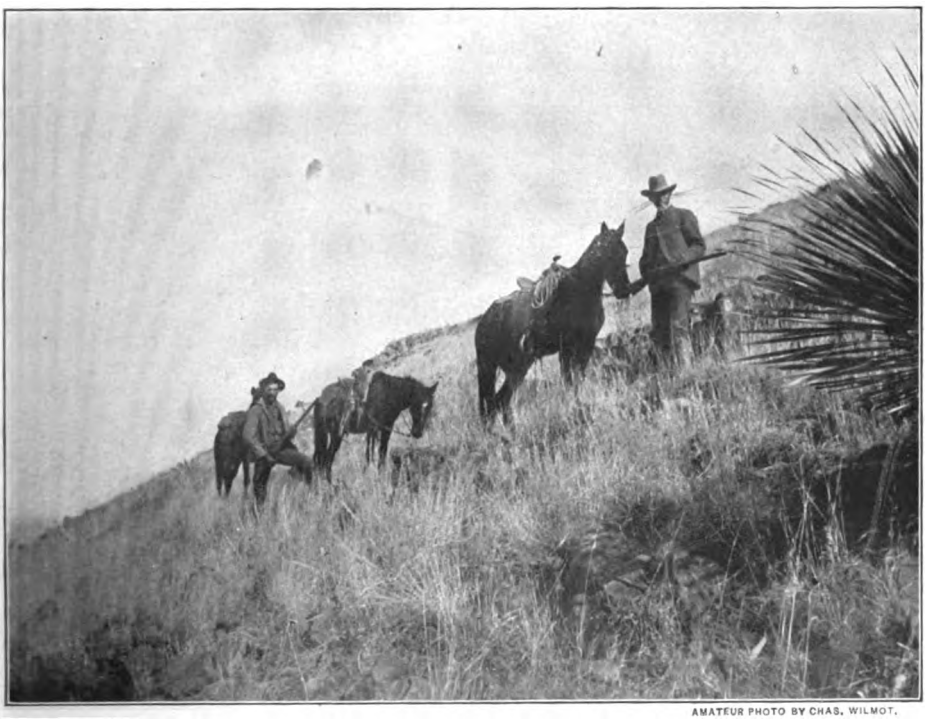
COMRADES.

HUNTING IN MEXICO.

CHARLES WILMOT.

I left Cranford, N. J., December 26th, taking my .45-70, and an empty trunk, which I hoped to fill with trophies of the hunt. I arrived at El Paso, Texas, which is the stopping point for the game fields, the 5th of January. That day being Sunday, I went across the river into Mexico, to the city of Juarez, and there witnessed a bull fight, a brutal sport.

I was to take the Sierra Madre railroad the following morning for Casas Grandes, which is the last station on the line, but on my return to El Paso that night I found that my trunk containing my cartridges and my old suit of clothes, had not arrived. That taught me the importance of always making sure that my trunk is on the same train with me. Having to wait a day for my trunk, and being informed that I would have to secure a permit to take my gun into Mexico, I went over to Juarez Tuesday to arrange matters. That is when I had my first experience with the Mexican customs house. I could not make a single person understand what I wanted. Not one could speak English, and I can not speak Spanish. Here I thank Mr. Mead, of the Sierra Madre railroad, for his kindness in sending with me an interpreter. After I had waited 2 hours, told my name, where I was going, the number of my gun and had paid $5, they drew up a bond, on which they put $3.80 worth of stamps. It was then, witnessed by 6 different persons and filed; after which I was given a permit entitling me to hunt 30 days. When going into Mexico pay the duty on your gun, which is assessed by weight, the cost being $1 a kilo, or 2 pounds. When you are through hunting, sell your gun; don't trouble to bring it back.



AMATEUR PHOTO BY CHAS. WILMOT.

THE HAUNTS OF THE MULE DEER.

Duty will be charged on all blankets and tents, unless they are soiled.

Wednesday morning I took the train for Casas Grandes, where I arrived at 5 P. M. After supper I secured horses for my trip to the mountains and at 8 o'clock the next morning I left Casas Grandes. I reached

my destination, Colonia Juarez, by 1:30 in the afternoon. There I met Mr. A. Ivins, a thorough sportsman and a reader and admirer of RECREATION, who took me out for a hunt after mule deer. Mr. Ivins secured a large doe and broke the leg of a buck. We took the trail of the buck and followed him all the forenoon, Mr. Ivins finally securing him after a warm day's work.

The mountains around Colonia Juarez are steep, and the trails are extremely narrow and rough, making it hard to follow a deer even when he is wounded. Mountain lions abound, also bears. Back of Dry valley there are plenty of whitetail deer, but they are small, weighing only about 60 pounds. I secured 3 good heads, 2 bucks and a doe.

When my time was rapidly drawing to a close, I made tracks for Casas Grandes, leaving there Saturday morning for Juarez. While getting off the train with my deer heads, I met a genuine game hog. He stepped up to me and asked me if that was all the game I had. On my saying yes, he said that the year previous he, together with 6 others of his kind, had killed 213 antelopes! He an American, too!

I am now having my heads mounted, and I hope to some day take another trip in that country when I have more leisure.

AMATEUR PHOTO BY MRS. E. E. LAWRENCE.

WILD GEESE.

Winner of 23d Prize in RECREATION'S 6th Annual Photo Competition.

SEEING THE OLD CENTURY OUT.

SIDNEY M. LOGAN.

Far up in one of the box canyons of the Kootenai range, curled up on a couch of fir poles, wrapped in a pair of California blankets, lulled by the sonorous blasts of a Rocky Mountain storm and the yelp of a coyote as it circled around the carcass of a big buck not far distant, Chris and I saw the old century out; and, in the language of Bret Harte, "it happened this wise":

In Flathead valley and the surrounding mountains the fall and early winter of 1900 held but poor promise to the anxious sportsman. Rapidly the December days flitted past, but it seemed that the snowfall so necessary to a successful deer hunt would never make its appearance. The 25th was ushered in, and with the exception of a few scattering flakes of snow it proved to be a green Christmas. All that time the close season, it seemed to at least 2 individuals, was approaching with indecent haste. January 1st would be the last day on which it would be lawful "to shoot or otherwise kill" the mowich, whether of the whitetail or mule deer species. Long ago the Major and I had talked matters over and had decided that Wolf creek, many miles to the Westward, far up in the Kootenais, should be the spot to respond to the crack of our respective .38-55's smokeless, and witness the downfall of countless antlered denizens of that section where everything stands up edgewise.

On the 27th, after a protracted powwow, we decided to start that night for our chosen hunting ground, notwithstanding reports that the snow had not yet driven the deer down from the high mountain peaks, and that the ground where we proposed to hunt was absolutely bare. Then followed perhaps the most pleasurable part of a grand deer hunt; the gathering together of camp paraphernalia. When that was complete we started for the Kootenais, about 65 miles distant.

Some time in the night we reached our destination. As the vestibule doors of our train were thrown open, we found that a blizzard was on in full force. The train came to a stop, and a few rapid kicks served to deposit camp outfit and bedding in the snow. We quickly followed in the wake of the bedding. We had scarcely time to recover our footing on the slippery grade before the red and green lights of the rear car were flashing out of sight around a curve while we, by the dim light of a borrowed railroad lantern, gazed first at our pile of luggage and then at the blank and slippery sides of the cut in which we found ourselves.

I started to hustle up the side of the cut, but the coating of fresh snow slipped beneath my feet and before I had fairly started up the incline I was deposited in the ditch beside the camp outfit. Again and again I tried to climb the frozen sides of the cut, but as often I took an involuntary toboggan slide into the ditch before I had gone halfway up the slippery incline. Finally we reached a fairly level tract of ground. There we built a fire, after a struggle of 30 minutes with wind and wet wood. The Major then fished out of his grip several sandwiches that he had carried in case of emergency. He said that particular brand of cheese came from Denmark, and I became satisfied I had probed the mystery of Ophelia's despondency and Hamlet's melancholy. By the time we had finished supper it was 2:30 A. M., so, unfolding our cots and spreading our blankets there in the pelting snowstorm, we betook ourselves to rest.

With the first peep of day we were both astir, and after a hurried breakfast of bacon, coffee and bread, we undertook to find a location for a permanent camp. Snow had fallen during the entire night, and was still falling; but the wind had subsided. Beds and camp outfit were covered with snow, but the temperature had moderated, and neither of us felt any disagreeable effects from our outdoor sleep.

The spot where we had dropped was midway between the stations of Sterling and Fisher River. Although almost the entire landscape was hidden behind a curtain of falling snow, we could see that we were in a deep canyon many miles in length, running East and West. Down this canyon, and on the opposite side of the railroad track from the spot where we had passed the night, noisily rattled the little stream known as Wolf creek, overhung with intermingled branches of willow, birch and evergreens. From each side of the stream, gashed and furrowed fragments of the great Kootenai range rose high up into impenetrable clouds of whirling, eddying, dancing, scurrying snow. Dim as the outlines were, the landscape was beautiful and stirring.

Within half a mile from the spot where we had passed the previous night we found an ideal camping ground; a level park-like tract, perhaps 40 acres in extent, covered with fallen pine, fir and tamarac trees, dry and hard. On one corner of the tract stood a thicket of young evergreens and

near by there gushed from the ground a stream of clear, sweet, vitalizing water. We built a blazing fire, pitched our tent, spread our cots, cut fir boughs, threw them on the floor of the tent and on the cots and we were ready to cook and eat dinner. This consisted of biscuits, fried veal and bacon, baked beans in tomato sauce and last, but not least, a mince pie which had been snugly tucked away in the outfit and came out as fresh and crisp as if it had been quietly reposing on a shelf all the time.

After dinner we started in search of deer, but, although it was dark when we turned back from a deep coat of fluffy snow that covered hillside and valley, and gave promise of royal sport among the mowich. The Major shouldered his gun and started down the creek, while I struck across the narrow bottom in the direction of a towering mountain whose base lay along the opposite bank of Wolf creek. For an hour I wandered over side hills and gulches until, hearing the sound of a shot near camp, it occurred to me that possibly the Major had killed a deer and was in need of assistance. The prospect of finding deer where I then was did not look bright, so I headed toward camp. As I came out to

DINING OUT.

our steps toward camp, we did not see even a cold track. The soft, fluffy snow on hillside and ravine was undisturbed save by the occasional track of a coyote or lynx. We consoled ourselves by assuring each other that if the snow continued to fall during the night, there would be good hunting on the morrow. The weather was so soft and warm when we curled up in our blankets that we let the fire die down; but long before daylight the temperature dropped to 10 degrees below zero, and we were glad when morning came.

As the sun made its appearance for the first time in 36 hours, it was reflected the railroad track I met a man, followed by a little black and tan dog. The stranger was dressed in blue overalls, German socks, rubber overshoes and a brown duck coat. His face was covered with a scanty growth of red whiskers; across his arm rested an up-to-date .30-40 Winchester carbine; and over his back was slung a knapsack improvised from a piece of burlap and containing his camp outfit. The black and tan pup wore a coat of hair that in a tropical climate would probably have afforded sufficient warmth to keep his little body from chilling, but as he stood on that bleak and exposed railroad grade

CHRIS AND HIS PARTNER.

that crisp morning, doubled up like a jackknife, his tail between his legs, and a discouraged look on his intelligent face, I was reminded of the cowboy artist's cow waiting for a chinook.

The stranger told me he had started 4 deer, but had failed to score. He it was who had fired the shot I had heard from the other side of the creek, and I breathed a sigh of relief when I found that for awhile, at least, I was spared the Major's vaporings concerning his prowess, while I was empty handed. I soon learned that the name of my new acquaintance was Chris; that he was running the Melbourne section house; and that he was out in quest of venison for his 6 little ones. He also informed me that he hailed from Denmark. I invited him to make one of our party and we returned to camp.

Arriving at the tent the stranger relieved himself of his pack and the shivering pup took possession of my bed. After a short consultation we picked up our rifles and started anew in quest of game. On the North side of camp the mountain ran boldly toward the clouds, and was almost bare of timber. A heavy growth of bunch-grass covered its South side and this grass, filled with frost and covered with snow, made the footing uncertain. Notwithstanding the apparent difficulties we enthusiastically set to work to scale its slippery sides. This was almost painful, and time and again it became necessary to clutch the bunches of grass to keep from sliding down the side of some ravine. The butt of the gun was in constant requisition as a brace against falling, and it required hours of almost constant climbing to reach a point where even a few fresh deer tracks could be seen. Shortly after starting, Chris and I had separated and after 2 hours of hard climbing I came to the conclusion that I should not see him again until I had reached camp. I was soon to learn, however, that he was but a short distance above me. I had just stepped on to a level bench on the mountain side, after a particularly laborious climb of 20 minutes, when I saw a whitetail fawn standing broadside toward me, in bold relief, its ears outspread and its head turned toward me, but as motionless as a rock. Now, the vital part of a fawn's body can almost be covered by a man's hand. It is a small mark; and that deer was 200 yards away. I had no desire to leave a wounded deer on the mountain side, and had still less desire to follow one up and down, across ravines and ridges. I stepped behind a tree and tried to figure out some scheme to get nearer my venison. Had it been an older animal, my quick movement would have been the signal for Mr. Deer to fly up the mountain side or into some ravine; but fawns have more or less curiosity, and I reasoned that it would stand there until it found out who and what I was. Between the tree behind which I was standing and the fawn, stood another tree about 25 yards distant, and in line with the fawn. I moved quietly toward the latter tree. As I reached it I cautiously stuck out my head and ascertained that my quarry had not moved. He was still standing upwards of 175 yards away; but as I saw no chance of getting closer, I rested my rifle against the side of the tree, took careful aim and fired. As the sound of the shot echoed through the surrounding canyons there was a defiant flutter of a white flag, and the fawn disappeared, unharmed, over the brink of a friendly ravine. I ran quickly toward the ravine with the hope of securing another shot, when I heard the voice of Chris yelling,

"Look out! There come 4 more."

I glanced up the mountain side, but before I could bring my gun to my shoulder, the last of 4 white flags was disappearing over the brink of the same ravine that so effectually sheltered the masterly retreat of the fawn. I heard what appeared to be a few emphatic remarks coming from the side of the mountain farther up, but as they were in the Danish language, I felt justified in ignoring them; so I painfully resumed my climb, determined to reach the top of that mountain or stay out all night. A little later, as I was toiling up the mountain whose summit seemed to be

receding rather than approaching, I descried the form of Chris coming toward me at a 2:40 gait, slipping, sliding, jumping and tumbling down the mountain side.

"Did you see him?" he questioned, as he came within speaking distance.

"See whom?"

"The deer I wounded."

I informed him that no wounded deer had crossed my track, and he explained to me that shortly after the 4 whitetails had made their escape into the ravine he had jumped 5 mule deer and had fired 2 shots at them. Although he was within a few hundred yards of me when he fired the shots, I had not heard the sound of his .30-40. The deer had started toward the summit and he had followed as quickly as it was possible for him to make his way up the mountain. Arriving at the summit he found that the tracks made by the fleeing mowich indicated that only 4 had passed over. He concluded that he had wounded one, but that in his excitement he had imagined he saw all 5 start up the mountain; hence he was on his way back to the place where he had first started them, with a view to picking up the trail of the wounded deer. Together we returned to what we supposed was the objective neighborhood, but a diligent search failed to disclose any sign of the missing deer; and as for blood stains, the snow was as pure and white as at the hour it had fallen.

Resuming our tramp up the mountain, we reached the summit a little before dark, and resting our tired bones on a fallen log, with a giant fir as a back to the seat, we feasted our eyes on the scene of beauty spread out below and around us. The sun, hidden behind the sharp peaks of the most distant range within view, threw its coruscations and scintillations of cold white light far up into the Western sky, and they were reflected back from the snow-capped masses of rock that seemed to tower away above timber line. Closer at hand, but far below us, ran seamed and ragged gulches whose sides were decorated with snow-encrusted foliage of pine and fir, intermingled with the ghastly, needle-shorn limbs of the tamarac. To the North lay the great gorge through which the mighty Kootenai found an outlet from its icy source far up in the British possessions to the sunny waters of the Pacific. Off to the South and West could be seen 12 deep, wooded canyons converging, indicating the place where the Fisher and West Fisher join forces. Far in every direction stretched the foliage-skirted and rock-capped mountains. From the head waters of the Swift Current and MacDonald lake, which take their rise on the summit of the main range of the Rocky mountains, 200 miles to the Eastward, to the confluence of the Kootenai and the turbulent Yakt, almost 100 miles to the Westward; from the Tobacco and Elk rivers on the North to Flathead lake and Swan river on the South was one vast stretch of mountain and woodland, dotted by lakes and threaded by hundreds of crystal streams. In almost the centre of this vast stretch of mountain woodland, often spoken of as a dimple in the cheek of nature, nestles the little valley of the Flathead, with its city of 3,000 busy, restless, ambitious inhabitants.

What section in all this broad land could furnish the hunter with such numbers and varieties of game? The South Fork with its elk and whitetail deer; the North Fork and MacDonald lake with their moose, goats, sheep and deer; the Yakt, the Fisher, the Stillwater and the Kootenai with their quota of caribou, sheep, whitetail and mule deer; to say nothing of the wild fowl, the bear and the mountain lion, that curse of all game countries, particularly the locality in which I found myself on the evening of December 30th, 1900. Yet how prodigal and reckless of all this game have been the inhabitants of this section.

Ten years ago these canyons did not echo to the whistle of the locomotive. A single tote road threaded its way through these passes from the summit to the Idaho line. Then came the building of a railroad. With the approach of winter thousands of deer came down from the high ranges until the woods swarmed with white flags and the antlers of giant mule deer. Then did the idle railroad laborer, the engineer, the camp follower and the hanger-on sally forth with all kinds of fire arms; then did gulch and crag re-echo hourly the crack of murderous rifles; then did the poor, bewildered creatures, seeking refuge from the inhospitable fastnesses above, fall by hundreds and thousands. To what purpose? To feed the hungry mouths of men, women and children, or even dogs? No! simply to satisfy man's ungovernable desire to kill, to slaughter, to "see them fall." All through the winter months, covered by a white mantle of snow, thousands of carcasses were strewn along the line of the railway, to fester and rot when the summer sun made its appearance. Yea! verily, in the case of railroad construction, man's enterprise and progress exacted a bloody tribute from the gentle creatures which inhabited the Kootenais.

Such is the story of the great county of Flathead. For years past deer have been mercilessly slaughtered in all sections of that county to gratify the morbid whim of would-be sportsmen, and to fill the pockets of hide and market hunters. Yet there has been no awakening on the part of its officers or inhabitants to the gravity of the crime. The killing of deer out of season and in excess of the number permitted by

law has been not only condoned but justified by the officers entrusted with the enforcement of the law. In this, such officers have been upheld by an unhealthy, unreasoning public sentiment. Now and then there comes a protest from some person who can see that the destruction of the game will deprive Flathead county of one of its greatest attractions, viewed from the standpoint of business or pleasure; but the demand for reform in this respect has been as a voice in the wilderness, or a cry for help on a storm-tossed sea. Members of the League of American Sportsmen have been warned that it would be better for their business if they would take less interest in the enforcement of the game laws; and newspapers have been known to urge an avowed determination of a candidate to enforce such laws as a reason for defeating him at the polls.

But there is yet hope. Education and time will work changes in public sentiment and the market hunter and the wanton destroyer of game will be dethroned.

The darkness was fast gathering around the top of the chilly old mountain when Chris suggested that we stroll toward camp. That spot was 3 miles away. We were soon going down a long incline directly toward camp, but the going was almost as difficult as the climbing we had experienced earlier in the day. The monotony of the constant slipping and stumbling and wild swinging of arms to maintain our balance was broken by an occasional fall that threatened to place one or the other of us temporarily on the retired list. Long before we reached camp we could catch occasional gleams from the camp fire far below us, and after we were once cheered by that sight the walking did not seem half so bad. When we arrived at camp the black and tan pup which had quietly followed at the heels of his master all day, again took possession of my couch, and by way of introduction I said,

"Major, here is a countryman of the late lamented Hamlet. Mr. Chris, this is the Major."

I felt that I ought to make known Chris' nationality, and I found, a few minutes later, as I was returning from the spring, whither I had gone for a bucket of water, that my judgment was right, for I heard the Major, in tones that proved his open-handed hospitality and generosity, say,

"Chris, here is some cheese that is hot stuff. It was made in your country, and as the rest of us can get all we want when we go back to town, I want you to eat all of this."

The next morning the Major was not feeling well, and decided he would take the evening train home. Chris and I decided to remain until the end of the season.

After breakfast Chris and I started for a high peak beyond any we had reached the previous day. We made but slow progress through the snow, which was more than knee-deep. Near the top of the peak all signs of deer had disappeared and, save by numerous marten tracks, the snow was undisturbed. It began to look as if we had had our climb for nothing. As we reached the top, however, we experienced a few moments of intense excitement. The snow was cut with fresh tracks, and the buck brush was mutilated and pawed in a way that indicated several large bucks had recently been feeding there.

We had taken but a few steps, when the little carbine Chris was carrying flew to his shoulder and through the partial screen of buck brush I saw that he was drawing a bead on as fine a buck as ever reared its lordly head on that old mountain. The buck was a corker and, as he stood there, his head thrown back, his nostrils inflated, sniffing the air, uncertain whether danger threatened or not, I knew that a metal patched bullet projected by 40 grains of high pressure nitro powder would soon end his career. Slowly the muzzle of the carbine in the hands of the steady nerved Dane was elevated, steadily it poised a second and then followed the quick, sharp crack peculiar to smokeless powder. There was a mad plunge forward, and that grand old monarch of the mountains went to his knees, but in an instant he was on his feet again and plunged madly down the mountain side.

Then commenced a wild scramble, up hill and down, the buck in the lead, the Dane a good second. Five times did that little carbine speak and 5 metal patched bullets passed through the body of the buck, each apparently in a vital place, before the old fellow surrendered. During the scramble I lost all track of the participants and was pursuing my way along the ridge when I finally received a hail from Chris, who was in the bottom of the canyon trying to snake the deer along by the horns. With difficulty I made my way down to where he was and relieved him of his carbine while he continued to drag the buck toward camp. Arriving in the vicinity of a deserted cabin, we concluded that as darkness was rapidly coming on we would leave the deer on the trail and proceed to camp. Coyotes were numerous in the neighborhood, and as a sort of scarecrow to keep them away from the deer, I spread a handkerchief over the carcass and left it for the night.

After supper, as Chris puffed at his pipe and I was enjoying one of my few remaining cigars, we discussed ways and means of circumventing the foxy mowich on the morrow, the last day of the season. I finally suggested that we take a pair of blankets each, and enough food for breakfast

go up the canyon and pass the night in the deserted cabin. We would then be in the locality where deer signs were the most numerous and would not have to travel so far in the morning to reach our hunting ground. We were both tired and the plan was not an inviting one; but as we had only one more day in which to hunt, it was advisable to make the most of it. Accordingly, about 8 o'clock, we rolled up a pair of blankets apiece, put some provisions in Chris's knapsack, and started for the cabin. It was about a mile from our camp, and the trail leading to it, even in daylight, was a hard one, but in the dark we were constantly slipping and falling.

Arriving at the cabin, we soon had a cheerful fire burning in the fireplace, which was half furnace, half stove, improvised from a few cobblestones, the top of a caboose stove, and a few rusty joints of pipe. After the chill had been removed from the cabin, we lost no time in rolling up in our blankets. In the cabin were 2 bedsteads, made of rough pieces of timber and covered with round poles. I was soon curled up in one of these while Chris, with many comments adverse and otherwise, but all good natured, spread his gray blanket on the other. The wind whistling around the corners of the cabin and through the branches of the trees outside lulled me to unconsciousness, and when the old year and the old century took their departure, they saw 2 weary hunters up there in that box canyon sleeping as soundly and sweetly as the babes in the woods, unconscious of the fact that the most wonderful of all the centuries was passing forever into the domain of history.

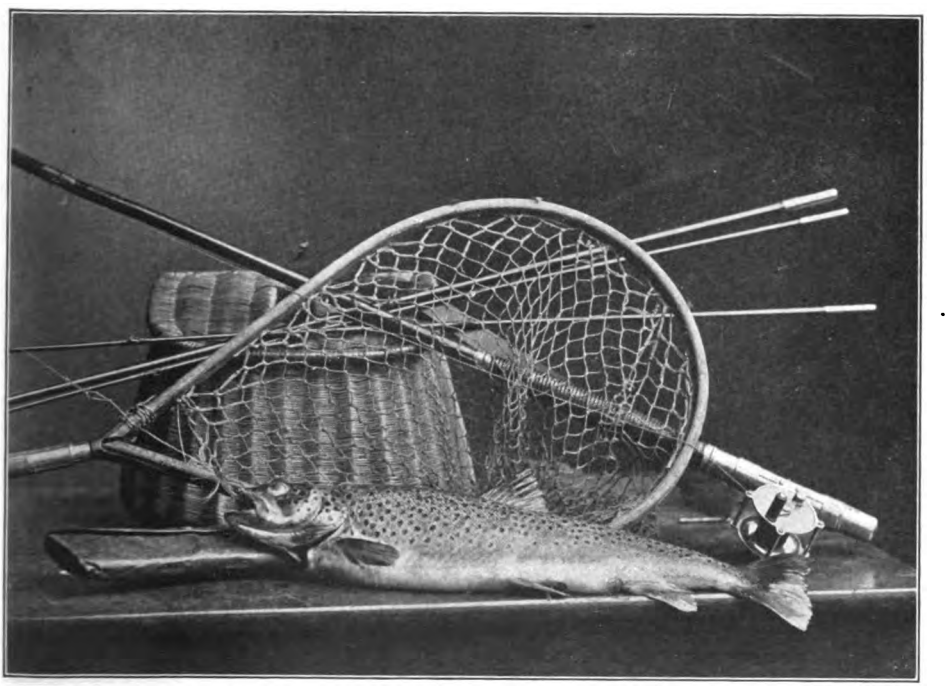
Our search for deer the following day proved fruitless. In the afternoon we wearily returned to the cabin, rolled up our blankets and returned to camp, picking up the carcass of the blacktail buck *en route*. Arriving at camp, we prepared a hasty dinner and packed our outfit. We were 4 miles from Atlanta, and it was necessary to get our outfit to that station in order to get it aboard the train, as the engineers refused to be flagged when going East. The problem of how to get a buck weighing 200 pounds, and as many pounds more of camp outfit, to the section house was a serious one. It was decided that Chris should "snake" the deer while I was to improvise a toboggan from a wagon sheet and perform the same service for the camp outfit. It was a primitive means of transportation and I was constantly stopping to pick up parts of the camp outfit, owing to the frequent overturnings of my awkward and refractory conveyance. After we had pulled and tugged at our loads until we were both ready to "sit down and cry" we discovered an old hand sleigh, which some trapper or prospector had abandoned.

THE OLD BUCK'S HEAD.

As we placed the old sleigh between the rails and loaded the outfit on it we thought our troubles were at an end; but notwithstanding the fact that Chris pulled liked a horse, and I pushed with might and main, the clumsy conveyance moved but slowly and painfully. The willow runners cut through the soft snow and clung to the cinder covered cross-ties with a loving embrace. Every 20 feet or so we were compelled to stop and catch our breath. After we had gone perhaps half a mile in that way Chris pulled the deer off the sleigh while I harnessed myself to the latter and pulled and tugged for dear life. We had managed to cover perhaps a third of the way and had given up all hope of reaching the station before the East bound passenger train when in the darkness behind me I heard a voice saying,

"Come, lads, get that thing out of my way," and I saw the hand car of the section foreman, manned by that individual and half a dozen Japs. I recognized him as an old acquaintance, and persuaded him to take the outfit on his hand car, to the station. Chris and I then loaded the carcass of the buck on the sleigh, and pushed and pulled for an hour, but could make little headway. The infernal runners seemed to

have an affinity for cinders with which the road was ballasted, and with dogged determination they refused to move except when the utmost force was used to compel them forward. Finally, casting the sleigh into the ditch, we snaked the buck along by the horns until I was moved by a happy inspiration, and suggested to the husky Dane that if he would cut off the buck's head close to the shoulders, I would carry the head and both rifles and he could carry the rest of the carcass. After kicking himself for not thinking of this sooner, Chris produced his jackknife and performed the necessary amputation. While this was going on Number 4 whizzed past us and we knew that we would have to spend the following day at Sterling section house unless we were lucky enough to catch an East bound train. It was after 8 o'clock when we reached the station and stored our outfit in the pump house so as to be able to catch any East bound train that might stop there for water; but no train passed that night and we were compelled to pass the following day in and about the section house. Toward evening Number 4 stopped at the water tank, we threw our outfit into the baggage car, and I made a rush for the diner to procure and enjoy a smoke, the pleasures of which I had been denied for 24 hours. As the train slowed up at Melbourne I bade good-by to my jovial companion, the Dane, after a mutual pledge that if circumstances permitted, we would meet again the next fall, and together chase the festive mowich.

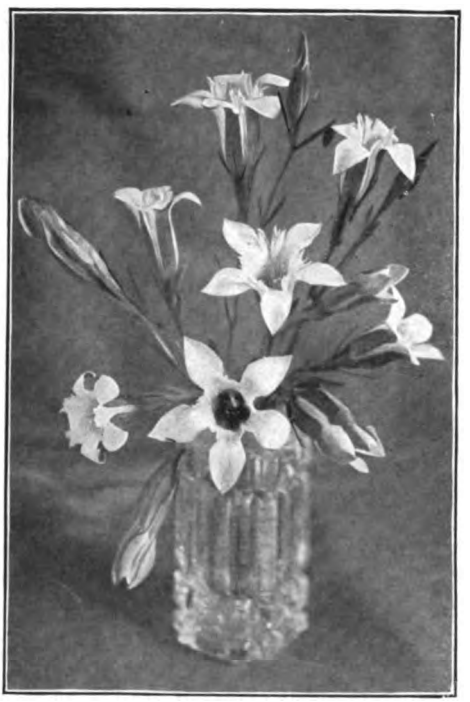


AMATEUR PHOTO BY E. D. HESS.

BROWN TROUT.
Winner of 18th Prize in RECREATION'S 6th Annual Photo Competition.
Made with Premo Camera.

GENTIANA AUGUSTIFOLIA IN FLORIDA.

It would seem strange to a flower lover of the North, who does not see a wild flower in bloom in the barren Northern woods from October to April, to step out here some day in mid-winter and find blooming at his feet one of the most beautiful and delicate flowers imaginable. Yet,



MID-WINTER BLOSSOMS.

here in Western Florida, where most vegetation is killed early in November, and where the mercury sometimes registers as low as zero, these little gems blossom from November to March.

This flower is, as its names implies, narrow leaved and slender stalked, not being able to support, upright, the single flower, without the aid of the grass through which it rises. Gray's Manual recognizes 2 colors of this variety, one azure blue, and one greenish and white variety; while one form has pure white lobes. The throat is greenish and the exterior tube is a peculiar shade of dull greenish purple, that at a distance looks blackish.

The home of our winter gentian is the low, moist, open ground bordering streams, usually in heavy grass. Its height is a few inches to a foot or more. The flowers are about 2 inches long, and are sensitive to heat and light, opening each bright, warm day, and remaining closed for days at a time in cold, bad weather. I have found gentians blooming on bright days following almost zero weather. This peculiarity renders them difficult to photograph, for they begin to close in a few minutes after removing them from the warm sunshine. Changing them from a warm temperature to a cooler often wilts them. Two of the buds in the illustration closed during operations and most of the flowers were getting limp. Gentian plants are perennial, and extend abundantly from New Jersey to Florida in one form or another.

C. E. Pleas, Chipley, Fla.

AN INTERESTING RELIC.

Sun Dial Presented to Yale University, by E. A. Caswell. Base from Stewart Mansion. Dial made by Gall & Lembke, New York.

SELF-DEFENSE WITH THE REVOLVER.

JACK PATTERN.

The first requirement is a suitable weapon. If it is to be concealed, a .32 or .38 double action revolver, with 3 or 3½ inch barrel, is most desirable. A hammerless revolver or one with the thumb piece sawed off, is the best for the pocket, as there is nothing to catch when drawing it. On the other hand, a hammer revolver is better for deliberate shooting, because it may be used as a single action. With a little care, however, the trigger of a hammerless may be held back to such an extent while aiming that it will take only a slight squeeze to discharge the revolver. In a country where it is not necessary to conceal a revolver, a .44 W. C. F., or a .44 Russian with 5½ or 6 inch barrel, is the best arm. A Remington double Derringer may be carried comfortably in the vest pocket, and is effective at close range.

The next consideration is the right ammunition. For the pocket revolver any black powder factory-loaded, .32 or .38 cartridges are all right, but I like U. M. C. smokeless cartridges, with the special self-lubricating bullet, better than any others. For the large revolver, factory-loaded cartridges are also best. My favorite is the U. M. C. .44 Russian smokeless, with above mentioned bullet. One of the best cartridges I have ever used is a .44 W. C. F. charged with 11 grains Laflin & Rand sporting rifle smokeless, and an Ideal express bullet. It is not only accurate, but will tear terribly. I have tried slightly hollowing the points of bullets of various calibers with excellent results.

Carrying the revolver with safety, and so it may be easily drawn is the most important problem of all. The hip pocket offers one of the best places of concealment, but is not so handy as the side pocket of the coat, from which it is possible to shoot without drawing the weapon, thereby taking an enemy completely by surprise. For the large revolver, an ordinary holster without flap, fastened on the hip from a belt, is the best method. If the revolver does not have a rebounding hammer, always lift the hammer to the safety catch; not half-cock, as some do. Never let the hammer rest on the cartridge, as it may be exploded by a slight blow, and in all probability would be by a fall.

If it is necessary to shoot at all, get the first shot if possible. This may not seem highly original, for writers on the subject have said the same thing since gunpowder was invented; but it can not be repeated too often. Get the drop on your man and hold him quiet, but do not let him come too near, as he may use one of the tricks which I shall describe later; and do not take your eyes off from him.

Anyone should, with a large, accurate revolver, after a reasonable amount of practice, be able to hit a man in the body at 50 yards with quickness and precision; but shooting in self-defense is usually at distances not exceeding 25 feet.

When a man has the drop on you and you are within easy reach of him, any of the following tricks may save your life, but they are all desperate resources: With a

READY TO PULL.

break-action revolver, if hammer is down, you may, by a quick movement, grasp the thumb catch of the revolver, release it and continue to pull until the revolver is completely opened, thus ejecting the cartridges. Mr. Walter Winans, in "The Art of Revolver Shooting," suggests grasping the barrel with the thumb under the catch, but I do not find it so effective as the method I have described. Mr. Winans also has a system of ejecting the cartridges from the new side-ejecting revolvers, but it is complicated and rather uncertain.

With any revolver other than a break-

action, it is better, in case the hammer is down, to grasp the cylinder; then, if you have strong hands, your opponent will be unable to cock his revolver. In case the hammer is up, you have a slim chance, unless by some device you can make your enemy withdraw his eyes an instant. Then quickly slip your thumb under the hammer to prevent it from falling on the cartridge. Grasping the cylinder also applies to hammerless revolvers.

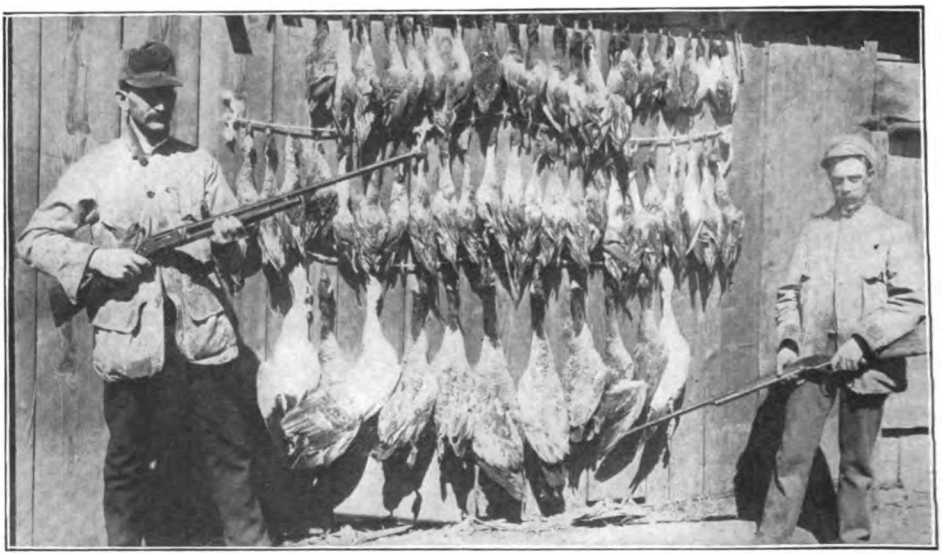
An excellent trick when your adversary has the drop on you, and calls for you to surrender your revolver, is to hand it to him butt first and upside down, with the trigger finger beside the guard. When he reaches out his hand for it, revolve the pistol with a quick motion so that the butt lands right in your hand. Then, if the revolver is a double action, pull the trigger; if a single action, hold trigger back and "fan" the hammer. This trick requires patient practice, but after a time may be done like lightning.

Some men like a single action revolver better than a double action, as the trigger may be removed or fastened back, and the hammer fanned, that is to say, cocked, and let fall by itself. I do not think this advisable.

When burglars call, do not carry a light, as it makes a fine target of you without materially aiding your search for the intruder. A large revolver with light charge is best for this work, as the heavy weapon is easier to shoot accurately, and the small powder charge is less likely to cause the bullet to completely penetrate his body, thus doing damage after passing through him. Rubbing the sights with phosphorus may be of aid to some, but I can tell approximately, by sense of direction, when the revolver is correctly pointed.

If you chance to meet your enemy outdoors, any object, such as a tree or a lamppost, makes an excellent screen for the body, even if it does not completely cover you.

While I hope those who read this advice may never have to make use of it, still if it becomes necessary for them to do so, it may be of value to them.



TWO MORE NEBRASKA SPECIMENS.
William McCaulay and C. A. Hillsabeck, Holdrege, Neb.

The quantity of game killed by these 2 men was not so much a disgrace to them as the fact that they sought cheap and disgusting notoriety by having the poor dead birds and their worthless carcasses photographed together. They should be ashamed of the display they have made of themselves and their game. I hope their friends, when they see this picture, will take occasion to convince these spring shooters that such pictures and such conduct are thoroughly disreputable.—EDITOR.

CAMPING IN COLORADO.

DR. J. N. HALL.

I occasionally meet some tired-looking physician who says to me,

"How can you get away to go camping in the mountains every year?" He implies that it is simply for fun one leaves the city and hunts and fishes through our great game regions. I might reply that I do not go camping primarily to have a good time. I go rather for the same reason that I insure my house against fire; because it is a good business proposition to do so. More people every year are learning that it pays a business or professional man better to take a vacation in the woods every summer, to have a pleasant time doing it, and to acquire a stock of reserve strength for the next season, than to stick closely to his work, make a little more money for a few years, and finally break down in health. A large proportion of diseases attack the victim because his health is below par, often, perhaps, only temporarily; while another man, equally exposed, escapes because he has a better resisting power. The one has patched up the little defects in his bodily mechanism, caused by the year's work, by a timely rest; the other has approached his season of heavy labor without the recreation he so much needs. The first, with a good digestion, and his blood vessels filled with good red blood, is exposed in a storm, and has a trifling hoaresness the next day. The second, equally exposed, has pleurisy or pneumonia, and tuberculosis follows.

I have no doubt that the time consumed in sickness among business men who do not take proper recreation vastly more than equals that taken for vacations by the others. It is extremely easy for me to decide whether I shall have my vacation yearly, and lose a few weeks' business, or work continuously and then spend 6 months enjoying an attack of typhoid fever or 6 years attempting to recover from tuberculosis.

In the past 20 years I have seen scores of men of my own profession who sought Colorado for health, and the almost invariable tale is that overwork reduced the doctor's strength, he took cold and the omnipresent germ of tuberculosis did the rest. This is just as true in other lines of work as in my own.

I take it for granted then, that one should have his vacation, and we shall next take up the question, "Where shall he go?"

I see many men and women whose idea of a vacation is to go to an expensive hotel, lounge in the smoking room, play pool or cards, attend a hop in the evening, drink plenty of strong drink, smoke continuously, and go home at the end of the appointed period. Fortunately they seem to be getting fewer, and those who delight to get close to nature for a few weeks in the summer are correspondingly increasing.

In the town and city we are subjected, in our civilization, to a thousand little influences which tend to wear out our nervous force. Poor ventilation, overheated air from the furnace, lack of oxygen because of its consumption by gas jets, inhalation of smoke and dust, with the ever present germs of disease, the nerve-rending clang of the gong on the passing car, the ring of the telephone bell, and scores of other annoying incidents of our daily life, continuously, nibble away one's vitality. In London, Sir Andrew Clark tells us, these and other deleterious influences so sap the strength of the population that a long search failed to show a single adult whose parents and grand parents had all been London-born. Except for the infusion of new blood from the country, the population would be extinct in 3 or 4 generations. These things all tell us plainly that we should go back to nature for our vacations. The more nearly we can approach to the conditions of life of the savage without his frequent lack of good food, the better it is for us, and the better for our descendants.

In describing my ideal vacation for a town-dweller and his family, I shall speak necessarily of Colorado and the neighboring States, since most of my adult life has been spent in them. From Northern Wyoming to Texas I have camped almost yearly, and I shall assume, in these days of cheap and luxurious railway travel, that my would-be campers are within reach of our mountains. Much of the mountainous part of the Western States is still Government land. In the valleys and on the plains, all of the good irrigable land is occupied by ranchmen, but it is a mere fraction of the total area of the State. An infinitesimal part is claimed by miners, and along the Union Pacific Railway, the original land grant is private property; but the immense forest regions are practically free to all comers. The great Forest Reserves are open to campers, and there they are free from annoyances from private ownership of land. All this portion of the State lies at an altitude of 5,000 feet or over, most of it above 7,000 feet. This is the ideal elevation for summer recreation. The nights are cool, and the heat of the day is tempered by the altitude, so it is never oppressive. From July till October

severe storms are infrequent, though moderate showers, and often flurries of snow in September, are common. In the lower parts of the mountains June and October may be added to the vacation months.

During July, August and September anyone in reasonable health may safely camp under canvas in any part of this vast region. The game is found during this time at the higher altitudes, chiefly above 9,000 feet, for the cool days and the absence of flies and mosquitoes are appreciated by animals as much as by mankind. Fish may be found almost anywhere. It is, then, a question of accessibility in the selection of a camping place. From Denver one may start with a wagon and in 2 to 6 days' drive, over fairly good mountain roads, reach almost any desired kind of camping ground. The nearer parks are almost devoid of big game, though grouse and trout abound. The ground ascends so rapidly that within 50 miles of Denver one may reach mountain peaks which are covered with perpetual snow. Most of the valley land within that distance is used for ranching or grazing purposes, but within a mile of the road may be found excellent camping grounds.

One of the most beautiful camping regions in the world, for one content to do without big game, lies some 70 miles Northwest of Denver. This is Estes Park. Most of the land, unfortunately, belongs to an English company, so that camping degenerates into living in a rented cottage or at a hotel; but take a wagon and a stout team, with a few extra saddle horses, and push up Clear creek, past Idaho Springs, till at Empire, about 8,000 feet high, you strike the Eastern end of Berthoud pass. Then for a dozen miles you toil over the rugged range of mountains into Middle Park, and you have taken the first great stride in reaching one of the finest camping grounds imaginable. You may drive a day's journey to the North, and find, at Grand lake, a little village made up largely of the cottages of summer residents; and all about, in the mountains, lonely spots where you may occupy as much space with your camp as you please. Your ponies may graze in open spots, the woods furnish you free fuel, the streams the purest of water, and if you have selected the right place, no ne ghboring camp need interfere with your supply of fish. Grouse are fairly abundant, but few if any deer are to be found. You are still too near civilization.

Or you may turn to the Westward, cross Grand river, stop a day at Hot Sulphur Springs, find glorious fishing in the Troublesome and neighboring streams, shoot a few sage grouse, and eat them with your bacon and trout in content, for you are reaching the border of the land of the mule deer. In 5 or 6 days from Denver you should be in Egeria Park; and almost anywhere for 50 miles to the North and West you may camp, and have venison the next day.

If your time is more limited you may take the Denver and Rio Grande or the Midland Railway from Denver at night, get off the train the next morning at Wolcott, Glenwood, Newcastle or Rifle, outfit conveniently and at moderate expense, and reach the same region in 2 or 3 days' travel, or come to fairly good ground in a single day.

Many other localities in Colorado are excellent, but these specific examples will answer for the present.

You may drive your wagon to a favorable spot and unhitch your team, and you practically own all the earth in sight of your tent door. You must be provided with a license from the county clerk. See that you put out your camp fire, and obey the perfectly reasonable game laws; but aside from these things you are a free man in a free country.

It is generally better to put up a tent in substantial style than to stop at a deserted cabin, except to escape a storm The Indians learned, ages ago, that it was not well to camp many weeks in one spot, since disease visits those localities where imperfect methods of caring for the waste of the camp exist. About the deserted cabin many sources of possible danger may be found, because of the carelessness of previous occupants; while your open camp in the woods is certain to be healthful for some weeks at least.

The camping grounds selected are usually so high up the streams that the water supply is pure One should never knowingly use water which may have been contaminated by some stray case of typhoid fever farther up the creek; but such a contingency is rather remote in the mountains of Colorado.

Settled in camp in one of Nature's great sanatoria; we breathe the purest of air, because we can not possibly get any other kind. We are practically out of doors the whole 24 hours. We have plain, substantial food for 2 reasons; camp life does not readily lend itself to the preparation of fancy dishes, and the appetite engendered by the vigorous out-of-door exercise calls rather for baked beans and bacon than for *pate de foie gras*. The epicure who, in town, considers the frying of a steak a capital offence, learns that for a 40-mile horseback ride over the hills a pound of fried venison goes much farther than a pound of broiled beef. It has much better staying powers. Nature does not err in leading the camper to prefer the articles of slow, perhaps difficult digestion, to the more easily assimilated food suitable for the dweller in cities.

Were you troubled with insomnia when

you came to the camp? Bid it good-by. You will have no further occasion for the acquaintance while here. The man who arises at 5, eats a good breakfast, rides 10 miles on horseback, walks 2, kills a deer and brings him to camp leading his horse, will sleep that night if the bed is humpy, and the covers awry. I remember one summer many years ago, when I was much distressed with the heat, lost much sleep because of my night work, and fell off a dozen pounds in weight. I rode 40 miles horseback from the station, the first day out, toward the camp of my friends, and got lost in the darkness, almost within sight of it, but found a stream and slept out on a saddle blanket and a slicker by a big fire, while the pony crunched away at the succulent grass near by. I remember that glorious sleep yet! The man who resorts to drugs for sleep when vigorous exercise in the open air is attainable, is trying to commit suicide.

You are too tender for such camping out? If you are, and don't want to get over it, stop here. The man who is so wedded to the luxuries of civilized life that he can not enjoy and thrive under the primeval conditions of existence would better stay in his hotel. But his posterity will not rule the earth. I look with pity on the man who does not realize that the conditions of high civilization apply to but a fraction of the human race. He who does not know that the normal method of travel on the earth's surface is not by a palace car, but by walking or upon the back of a beast of burden, will never have a broad comprehension of mankind. The boy who learns Greek before he learns to ride a horse may make a college professor, but he will not ordinarily have such an insight into life as to be a mover of men. He who learns geometry before he learns to find camp alone is a poor, ignorant individual.

Most of our broadest men in business, in politics, in the pulpit, in the professions, have the fondness for out-of-door life which goes with a vigorous constitution and a strong mind. The hope for the future of our race lies in encouraging the modern tendency to get out of the ruts of civilization for a time every year, and live close to Nature for a season.

Although such camping out is desirable for almost everybody not actually ill, it is especially to be recommended to certain classes. He who, from his family history, fears consumption in himself or his children, may do more than drive away his chief enemy by such a vacation than by buying a store full of drugs. The lungs, insufficiently used, and possibly bound down by adhesions from a previous tuberculous pleurisy, expand under the influences of the rarefied air and the vigorous exercise. In 2 months I have seen narrow chested women discard good dresses because they could no longer button them about the chest, owing to its increasing girth. The anemic girl, lacking in her blood the oxygen-carrying iron, and ready to fall an easy prey to tuberculosis or other disease, increases the number of her red blood corpuscles, and her percentage of hemoglobin: and the pasty white face glows again with the ruddy color of health. She longs for good beef and eggs and milk rather than for chalk, pickles and slate pencils; and shows in her high spirits and her elastic step the change in her feelings. No drug can replace open air life and good diet in the treatment of anemia, and especially such life at a considerable elevation. It is well known among medical men that the blood at 5,000 to 10,000 feet altitude contains a greater number of red blood cells than at sea level. To those who have lived in the enervating heat of our Southern cities, and especially those who have suffered there from the great destroyer of the blood, malaria, the mountains are a haven of safety. A host of pilgrims from Texas and other Southern and Southwestern States seek this region yearly, and it is yearly increasing. The tonic influence of the altitude on the blood, the cool nights, with their corollary, refreshing sleep, and the increased appetite and power of digestion, all tend to restore these sufferers to perfect health.

I have spoken of insomnia. A few nervous invalids, not strong enough to rough it, are not relieved. Those able to ride, or hunt, or fish, however, sleep wonderfully well as a rule. Altitude predisposes to slumber in the normal individual, for a time at least, even in the absence of severe exercise.

Practically all lung diseases not accompanied with permanent shortness of breath, do well in the mountains. Many cases of asthma and other diseases where this symptom does exist do well. Medical advice should be sought on this point.

In general, advanced organic diseases of the heart are made worse here, but functional diseases of this organ are improved.

One will often be many miles from a physician, and a supply of simple remedies should be obtained on the advice of the family physician before camping. In this way many of the slighter affections may be easily cared for, and serious disease in camp is a rarity. It seems curious at first sight, but even a severe cold is rare in camp, for the constant exposure to the open air renders one less susceptible to such affections. The avoidance of sickness is more in increased resistance than in avoiding exposure to the cause.

One should not fear too much the effect

of an occasional wetting from a storm or a fall in the stream. I have rarely, if ever, seen harm come from this source, if the clothes could be dried as soon as one ceased to exercise. Most hunters and fishermen in the mountains have been wet through and dried their clothes by their own bodily heat without any harm. I do not of course recommend this; I mention it merely to show that an ordinary drenching is not to be expected to cause sickness even if one can not get dry clothing. A big dinner often answers in place of a change of clothes, as many of us can prove by experience. The increased dryness of the air in the mountains is here of advantage.

It is more dangerous to sleep in a damp bed, and it certainly is not especially comfortable. Particular pains should be taken in packing and in camp to protect the inside of bedding from exposure to rain. A wet tarpaulin on the outside cuts little figure if it can be dried out the next day.

The temptation to take plenty of exercise in the mountains is one of the best features of camp life. The liver, which does not work well in New York, with too much rich food and too little exercise, is likely to stop its complaining under the influence of a plain diet and muscular work, which increases every secretion. One should recall here Abernathy's advice to gouty Englishmen, "You can get well if you will live on a shilling a day and earn it by manual labor."

The increased demand on the heart leads to its improving in tone, for, like the digestive organs, it must rise to the occasion. The lungs, as we have mentioned, the skin, and all the organs take on new activity. Under the influence of the improved general condition many minor ailments, especially of a nervous nature, disappear. The influence of change has long been recognized as of great value in the treatment of disease. The tremendous change from a strenuous city life to that of the mountain camp often works an actual miracle.

THE MAN BEHIND THE GUN.

C. L. BAILEY.

I have followed the discussion,
Read the logic and the lore,
As to what's the proper rifle
And what's the proper bore;
And I've come to the conclusion
After all is said and done,
There's a mighty lot depending
On the man behind the gun.

Better use a gun that fits you,
Though its caliber be small,
Than a mammoth mouthed old cannon
That you can not shoot at all.
You can't kill game when you miss it,
Though your bullet weigh a ton.
Just remember there is something
In the man behind the gun.

Be it twenty-five or thirty,
Or up to the largest size,
If the shooting stick is perfect,
'Tisn't there the secret lies.
Let him have what bore he chooses,
But before I bet my mon',
I would know the shooting metal
In the man behind the gun.

When you're suffering with Buck fever,
Or your nerves are on a "tear";
Your eyes are out of order
And don't catch the notches fair;
You can miss your game dead easy,
And of course it mars your fun,
But don't lay it to your weapon;
It's the man behind the gun.

So let them scrap and wrangle,
I'll not enter in their fight;
For I've come to the conclusion,
Which I'm sure is nearly right,
Though the caliber's the largest,
Or the smallest 'neath the sun,
There's a mighty lot depending
On the man behind the gun.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman.

TRYING TO BE FUNNY?

Colorado Springs, Colo.

Editor RECREATION:

Someone has forwarded me a recent copy of RECREATION containing your characteristic complimentary article and pleasing picture of myself. I gather in glancing over your magazine that RECREATION approves of shooting 200 ducks a day. This is a tall limit but worthy the high aims and standard reached by RECREATION in other directions. With these views it was somewhat of a surprise that you should publish a picture containing only 80 ducks. These few birds were obtained in 4 hours, and not in 2 days, as stated in your article. The law in Utah is 40 ducks a man per day, and as there were 2 men in the boat, it entitled a bag of 80 ducks. As soon as they were obtained we pulled out for home. This was on a Saturday when there were many shooters at the camp and I could only be accompanied by my regular companion. From Tuesday to Friday I used to take out 4 men in the boat, so that with myself, the boat could lawfully bring home 200 ducks, your exact approved limit. Arriving on the shooting ground, a big boat blind was made with the 4 men in the rear end of the blind, with a box of cigars and a bottle of old rye among them to wet their whistles.

Then we were ready, when the ducks came in sight, for all 5 men to call, each in a different key, and in an expert and interesting manner, which rarely failed to bring the ducks right up over the 150 decoys that were artistically set out in front of us.

At noon, when the shooting quieted down, the 4 men would go in different directions over the marsh, and the ducks, disturbed while resting, would almost always come to my big bunch of decoys. You will regret to hear that the boat never quite reached your high standard of 200 ducks, the full legal quota. The best bags returned were 197 ducks and 3 geese, 187 ducks and one goose; 183 ducks and 11 geese, one swan. The birds were all fat and mostly redheads, mallards and pintails. All the game was sent to Salt Lake City, given away and distributed among the different charitable institutions, except one batch of some 300 ducks that were given away in Ogden.

If you had only put a stamp on the letter you claim to have mailed to me, it would have given me great pleasure to forward you a large photograph of the "Best Day," 197 ducks and 3 geese, nicely hung up in the form of a bower, with the 4 men underneath, each holding his pump "gas-pipe" gun, with the box of cigars, alas, empty, and the bottle of whiskey, also extra dry, in front of them. In the centre is yours truly with 3 double barrel guns and 3 shell cases, each holding 200 cartridges. The whole makes a grandly artistic and sportsmanlike picture that I feel sure would have greatly pleased you, and once having seen it, you never would give a second thought to a little bag of 80 ducks. Now, I can not say I quite agree with you or quite approve of shooting 200 ducks a day; yet, under the present laws of many States, it can be done. Still I am with you heart and soul in your fight to a finish against game hogs. It is my humble opinion, even if it does clash with yours, that 50 game birds of any kind in one day should be enough for any man or party. With such a small number of birds to get, the sportsman could start late in the day and get back early, and even then have a respectable bag of birds. Rest assured that law abiding people and good sportsmen, like myself, will never break the law. The present game laws in many States may be faulty, but that is not the sportsman's fault. I expect to go South in a few days, on a month's shooting trip, to a place where last year 100 quails and snipe were an average daily bag. This year I intend to stop after pounding them for 50 birds a day. I shall only take 6,000 shells with me. Will write you of my luck on my return. Meanwhile, I wish you every success in driving the game hogs out of business.

H. Gardner.

You are not only a game butcher, but a liar as well. RECREATION never advocated killing 200 ducks in a day, and you know it, if you know anything outside of your feed trough. Possibly you mean it as a joke. If so, it is as high a grade of humor as one might expect from your level. If some Southern sportsman where you threaten to go and kill 50 ducks a day does not put a charge of buckshot into your carcass before you get out of there, he will be neglecting his duty to his fellow men.—EDITOR.

BE CONTENT WITH FEW.

Some time ago Mr. Ralph Widdicomb of this city handed me a postal from you which said: "Is it true you killed 100 grouse in one day?" He asked me to reply to it, but I shortly after went North into the woods, and only remembered it on finding the postal when I returned. Last autumn

Mr. Widdicomb and I hunted grouse together 17 days. We have hunted together off and on for the last 14 years, know the country, are fairly good shots, and have excellent dogs. We are not and never will be game hogs. Our score during the season was 255 grouse, or an average of 15 each trip. Mr. Widdicomb killed 130 and I 125. We never "cleaned out" any locality, and can hunt over the same ground next year as we did last with the assurance of equal success.

I do not know who conveyed to you the interesting information you received, but feel that we should not go on record as killing more game than we ought.

Stewart E. White, Grand Rapids, Mich.

ANSWER.

No, you are not exactly game hogs, but you come mighty near the line. You averaged 127 birds each for the season. That is at least twice as many as any decent sportsman should ever kill in a year. Your shooting would not have been excessive 10 or 20 years ago, when birds were abundant; but at this day, when the birds are threatened with extermination everywhere, any man should be satisfied with 50 in a year, and the best plan for killing this number would be to take 10 days for it, limiting your bag to 5 birds each day. Suppose you get these in 5 hours in the morning, so much the better. You can find 100 things in the woods every day to interest you and occupy your time without killing something every few minutes. Several States now have laws limiting the number of grouse which any man may kill in a day to 10, and Pennsylvania has a bill before her legislature to reduce the legal number from 10 to 5. It is nearly sure that this bill will pass. New York has a law limiting the number which any man may kill in a year to 36. That is too many for any Eastern State. In Michigan you have more birds than we, and it might yet be permissible to kill 50 in a season, but but no man should kill more than that, even if the law allowed him to kill 1,000.—EDITOR.

COLLEGE PRESIDENT FINED.

I enclose a clipping which I think will interest RECREATION readers.

Last week Prof. O. C. Hagermann, president of Lexington University, visited friends at Bethany College. Before returning he concluded to spend a day hunting. Accordingly he set out early Saturday with a gun and dogs and succeeded in bagging 38 quails. Saturday night he came to Wellsburg to take the train for home, and while he waited he told a friend of his success. Unfortunately Game Warden Henry Gasmire heard it. He arrested the Professor and caused him to appear before Squire Russell to answer to the charges of shooting quails out of season, of hunting without the license required of hunters from another State, and of shooting more than a dozen quails in one day. The Professor paid $20 and costs for his day's sport.—Morgantown News.

I noticed that you roasted a man who wanted to advertise ferrets. I wish all editors would do the same. Ferrets have about exterminated rabbits here. One day last fall a friend and I, with 2 good dogs, hunted over territory where 4 years ago we started 25 or 30 rabbits. All we saw was one rabbit, and that was floating dead in an old well. My companion suggested that the rabbit had seen us coming, had mistaken us for some of the ferret brigade, and had concluded it was easier to drown than to be punched to death in a bag.

B. S. White, Morgantown, W. Va.

Why should the editor say "unfortunately Game Warden Gasmire heard of it?" I consider it a great piece of luck for the cause of game protection. Gasmire is a man after my own heart, and I trust he may be fortunate enough to hear of every man who violates the game or fish law in his district for the next 10 years.

I always like a man who hunts big game successfully. The president of Lexington University was big game in this instance and he should have known better. In fact, he should be teaching his pupils proper respect for the laws of the land, instead of setting them an example in the way of breaking those laws. The board of regents or trustees of the college he presides over should promptly relieve him from duty and put a man at the head of that institution who will bring up the pupils in the way they should go.—EDITOR.

OTHERS APPEAL FOR THE GREY SQUIRREL.

I am pleased to see your appeal for the preservation of the grey squirrel. I do not see how any lover of nature and the creatures of the woods can fail to second such a motion. No creature which crosses the path of the nature lover appeals more openly to his better nature than this handsome, vigorous, cheery little fellow. He personifies the very charm of woodland life, the freedom of it, the hardihood that comes from honest toil and the ability to outwit all enemies but man. I have seen his numbers in Massachusetts dwindle from comparative plenty to general scarcity and I know that in New Hampshire the beech and oak woods which knew him well are seeing his sure and ultimate extinction.

I am aware of his migratory nature in times of food scarcity and there may be many other contributing causes in the matter of his decline; but none is so important a factor as his relentless pursuit with dog and gun. It is usually done by the hunter who can not find success or pleasure in shooting on the wing, who places chief reliance on the squirrel's innate curiosity to lead him to his death. Let us spare him from the general destruction which future

generations will lay at the door of the hunters of the 20th century. Let us keep his graceful form and cheerful presence to lead our children to the woods when the grouse, the woodcock and the quail we love so well shall have joined the passenger pigeon and the wood duck in a regretable extinction.

Ernest Russell, Worcester, Mass.

You have said a true and valuable word in behalf of the grey squirrel. We ought in some way to make it a crime to shoot any squirrel anywhere, red, grey or black. There is no animal our woods, East or West, could less afford to lose than the different species of the grey squirrel.

David S. Jordan,
Stanford University, Cal.

A WELCOME RECRUIT.

I am greatly interested in game protection, and being one of the class of much criticised game wardens, I sympathize with you in your efforts along this line.

Five years ago I was one of the worst poachers in this county. RECREATION opened my eyes to the wrong I was doing. I stopped. Next came a desire to induce others to do likewise. I talked game protection wherever I thought it would do any good, but found it needed something more than talk to persuade some people. During the years '97 and '98 there were 4 cases brought up for violations of the game laws, but owing to the prejudice existing and because of the wardens not bringing the right kind of evidence, 3 of the 4 were acquitted. They were all undoubtedly guilty. Our game was going fast and the fishing was poor.

The next year I tackled the thing. I realized I was up against a hard proposition, and was advised to drop it, being told I would lose all my friends. Well, I have lost some, and it has cost me a good deal in a business way; but I have the satisfaction of knowing that the laws are more respected and that game and fish are on the increase. During '99 and 1900 I brought 25 or 26 cases and secured convictions in every case.

Our system of game protection is not encouraging to the local wardens. We get only the regular fees allowed a sheriff, in case we catch and convict our man. If we don't catch him, which often happens, we we have to make out our bill for expenses, and as often as not that is disallowed. There is a prospect of a change in the near future, as sportsmen all over the State are disgusted with the present system.

Mark Craw,
Game Warden, Traverse City, Mich.

EDITORS FALL IN LINE.

I enjoy RECREATION more than any other periodical that reaches my desk. Your hog roasts are the best item on the bill of fare. Here is a clipping from the Dayton, (Ohio) Herald:

Mr. C. F. Weinman has returned from Frankfort, Ross county, after a week's hunt. He reports that the local K. of P. lodge of Frankfort divided its membership and started out to secure the necessary game for a big supper. There were about 50 men on a side, and they started at 6 in the morning, with the understanding that everybody was to be in at 8:30 P. M.

The party that returned on time and won the count reported 218 rabbits, 6 squirrels, 1 woodcock and 193 quails. After the time limit had expired, the other party returned with additional counts to the number of 118, making a total slaughter of 536. Such a killing of the innocents is an outrage in any civilized community. That a body of intelligent men, representing an order whose object is the elevation and betterment of mankind, should be a party to such an affair, seems incredible. Surely the laws are lax that permit such wholesale slaughter and the running at large of such a gang of remorseless game fiends.

If above be true, K. of P. must stand for Kings of Porkers.

J. E. Cavey, M.D., West Alexandra, O.

ANSWER.

Here is an editor who has hit the trail in pursuit of the game hog. Every month I get more clippings of this character from local newspapers than I did in the previous month. However, these newspaper men rarely know what publication set the pace for them in roasting game hogs; but the readers of RECREATION know. May this wholesome sentiment continue to spread until every newspaper editor in the whole country gets into line. When the day comes that the game butcher invariably gets a thrust in the neck when he makes a big bag instead of being patted on the back by his local newspaper, the millenium of game protection will have arrived.—EDITOR.

RESULTS ARE WHAT COUNT.

The answer you gave the man who wrote of killing 19 antelope in Wyoming was all right, but the way you abuse game hogs in general does not meet with the approval of as many readers of RECREATION as you may believe.

If you must roast people do so in a less abusive manner. If you were talking face to face with some of your readers in the West, and used such abusive terms as you sometimes apply to them in RECREATION, there would be trouble in a hurry. I am not another "squealing game hog." I do not run deer with dogs, have not used a shot gun for 15 years, and I am never seen in company with a man who uses bird dogs.

A. A. Haines, Armington, Mont.

ANSWER.

I hope to make several more trips to the West before I die, and I fully expect

that if I should come in contact with some of the men whom I have branded, I should have to do some shooting in self defence. Possibly some one of them may get the drop on me; but if so, I shall not be the first man to die in a good cause.

If these men want me to quit calling them game hogs, they must quit being game hogs. That is the only remedy while I live, and run RECREATION. I am not trying to reform the game hogs, by any means. I am trying to make them and their work so disreputable that all decent men and boys will avoid being led into their ways. In this work I am succeeding to a much greater extent than you or any other man outside of this office can ever know. It is true I have lost many good friends on account of my work, but it is because they do not know the results of it.—EDITOR.

SHOULD JOIN THE ARMY.

The F. G. Williams, of Ferndale, Cal., who bagged 61 ducks one day last fall is a prominent business man of that town, and, I understand, is president of the gun club there. I have been told that he frequently shoots 30 or 40 ducks in a day. I think you could teach him that 20 ducks should satisfy any man for one day's shoot.

Every man who can afford a gun and ammunition can afford to put up $1 a year to help protect and increase the supply of game by joining the L. A. S. I think the reason many do not join, who otherwise would, is that they think the League was organized chiefly to protect game for the rich sportsmen. Yet you can hardly blame some of us who live here in the mountains. The deer feed on our ranges, and in some cases destroy our orchards and gardens. Then the city hunter, who can have his meat brought to his door during the close season, comes out when the season opens and kills 15 or 20 deer, and perhaps a steer belonging to the rancher. So long as such work goes on we cannot expect the rancher to go without meat, and furnish range for deer in order that strangers may slaughter them. As a rule, the rancher or stockman kills but few deer in a year, and those only for food. With some L. A. S. members scattered through the mountains, and a limit placed on the number of deer and other game animals and birds one man may kill, game in this country would increase so all could have a share.

Your war against those who slaughter game in great numbers will not be in vain. I hope to see the day when every man who hunts will be a member of the League.

D. S. Ballard, Bridgeville, Cal.

DEER, FISH AND GAME HOGS.

I am greatly interested in your excellent magazine, and always begin to hang around the newsstand a week before its arrival. I am specially pleased at your stand for the protection of game.

Game is plentiful here. Deer are frequently seen within a mile of town, while 10 miles from here they are plentiful, and there are a few bear. Small game is abundant, rabbits, ruffed grouse, prairie chickens and squirrels being found within an hour's walk from town. Quails are greatly on the increase. They are so tame in some cases that they come every morning to eat with farmers' chickens. We have few ducks here. It is doubtful whether there are 25 killed here in a year. We have a few woodcocks, but I do not believe 10 persons in town know we have them.

We have little fishing; a few trout, rock bass and pickerel. A dam went out in the Eau Claire river, the only large river near here, last summer and a great many pickerel came up the river. As soon as it was known, every large pool was dynamited or seined. In 2 weeks there was not a pickerel left.

Some parties were found seining and fined $1 a pound for all the fish found in their possession. There are few game hogs here, but plenty of fish hogs. Quite a number of our sportsmen take RECREATION, and all are delighted with it. Success to you. I wish your circulation were 300,000. I am a friend of the "little red devil" in spite of all said against him.

Edgar Secor, Augusta, Wis.

STOP THE SALE OF GAME.

My only recreation the past 26 years has been duck shooting. I have shot on Illinois river the last 16 years. Unless something is done it will be impossible to get ducks on the Illinois in 2 or 3 years more. It has been said by a college professor, I believe, that it would be impossible to exterminate ducks with the shot gun. It has also been said that their diminishing number is due to the gathering of their eggs for commercial purposes. If this is true, could the destruction of the eggs be stopped?

T. S. Hitt, M.D.,
Indianapolis, Ind.

ANSWER.

The college professor is entirely wrong in his statement. The ducks and geese have been reduced probably 75 per cent. in the past 10 years by the shot gun; but not in the hands of sportsmen. It is the market hunter who follows the ducks from the Canada border to the Gulf of Mexico; who shoots them all fall, winter and spring, and ships them to market. That is what will

clean them up in 5 years if the sale of game is not stopped. There is little commercial traffic in the eggs of wild ducks and geese. There is a provision in the Dingley bill which absolutely prohibits the shipment of eggs or any product of the eggs of game birds into this country from Canada. Of course the Indians and some of the white people in the far North, the nesting grounds of these birds, do gather their eggs and eat them, but that would not make much impression if the sale of the birds could be stopped.—EDITOR.

THE LIMIT VARIES.

Please tell me how many ducks, quails and chickens a man may kill without making a hog of himself.

Louis Niles, Sioux City, Ia.

ANSWER.

It is difficult to answer your question explicitly. Local conditions govern this matter to some extent. It may be generally stated, however, that no man should kill more than 15 quails, ducks or chickens in any one day anywhere. There may be some exceptions to this rule in States where game is abundant; for instance, in Texas, Oklahoma and Indian Territory a man might reasonably be allowed to kill 20 to 25 birds a day. On the other hand, in New York, Pennsylvania or New England, where quails are exceedingly scarce, a man who would kill more than 10 in a day would be greedy,

In Iowa, Minnesota, and Dakota, no man should kill more than 15 ducks or chickens in a day nor more than 100 of these birds in a season, no matter what his opportunity may be. The laws of Colorado allow a man to kill 50 ducks in a day; in other words, the laws of that State allow a man to make a hog of himself. In my judgment, no decent sporstman would kill more than 15 or 25 ducks in a day at the outside, notwithstanding the legal provision. Any man can keep on shooting all day, but it takes a gentleman and a true sportsman to stop when he gets enough, with plenty of game still in sight.—EDITOR.

ON THE ST. REGIS.

I spent 13 weeks in the Adirondacks last summer and fall, and much of that time in or about Brandon, Franklin county, N. Y. The village is reached by the New York & Ottawa R. R. There are 2 hotels in the place. One, kept by Henry Lewis, is well equipped as compared with the ordinary country hotels, and the rates are reasonable. The St. Regis river flows within a mile of the hotel and furnishes good duck and deer hunting. On the 16 mile level from Brandon, to the State dam, opportunities are frequent for getting a deer. In a good season, when the water is not too high, hunters often report seeing an average of one deer to each of the 16 miles. It would be hard to find a better trout stream than the St. Regis, and in the spring even the novice can catch trout there without difficulty. The scenery of the region is fine. From the hotel one can see mountain peaks in almost any direction, Mt. Marcy, Whiteface, Blue Mountain, Buck Mountain and St. Regis being among the number. St. Regis is easily accessible for climbing, and from its summit can be seen 64 lakes and ponds. There are several efficient guides living in the village, and a sportsman securing the services of Walt Stevens, Dunham Allen, Geo. Campbell, or Ed. Le Tray may be sure of a good time and game enough.

Albert C. Coon, Oswego, N. Y.

COSTLY VENISON.

Just how many persons will get into trouble over the deer that was found concealed in the storehouse at Wertz & Guncheon's lumber camp is difficult to tell. One of the most startling things in connection with it is the statement made this afternoon that the venison, which is now being served to the patients of the Williamsport hospital, was meant to be served at a banquet to have been given in Washington, D.C.

A man who says he is acquainted with the facts, stated at the alderman's office that a prominent citizen had written to certain men in the woods to get a deer for him and ship it as soon as possible. The deer was secured but the men seemed afraid to ship it. The Lycoming Sportsmen's Association gave the State authorities the necessary information and the finding of the deer's carcass followed. As a result there will be no swell dinner at which this venison will be served.

George Guncheon, who is of the firm of Wertz & Guncheon, came to the city this morning and at one o'clock went before Alderman Kellenbach for a hearing on a charge of having deer in his possession out of season. He pleaded not guilty. Constable Bunnell, of Waterville, who found the deer, stated that Mr. Guncheon opened the door of the building in which the deer was kept. It was in Wertz & Guncheon's lumber camp. The defendant offered no defence and Alderman Kellenbach sentenced him to pay a fine of $100 and costs. Through his attorney, H. G. Troxell, he appealed the case. Bail was fixed at $300, which was furnished by H. C. Bubb, of this city.—Williamsport (Pa.) Sun.

SHORTEN THE SEASON.

Correspondents of newspapers in this locality have expressed their opinion that the deer season ought to close earlier. I think as well as they, that the law should be changed and the season shortened by at least 10 days. I should not change the opening day, but if the season ended 10 days earlier it would give hunters time enough to kill all the deer that can be spared. If the present law continues in force, and snow comes every year as early as it did this, our Adirondack deer will in a short time be exterminated. Along the A. & St. L. R. R., from every station beyond White Lake, deer were brought out by the score. The snow was so deep that they had begun to yard, and anyone could kill the limit and more. Of course,

few hunters threw away the chance to get what they could. It is estimated that 6,000 deer were brought out of the woods, to say nothing about those that were not brought out. I hope our law makers will look into this matter and change the law.

W. T. Crill, Westernville, N. Y.

STRAY BULLET OR STRONG BEVERAGE?

Wisconsin papers have been publishing accounts of the killing or wounding of deer hunters by stray bullets in the woods. Excited by those reports some novices are trying to persuade the Legislature to prohibit the use of high-power rifles in this State. I doubt if a man has ever been hit by a stray bullet in our deer country. It is everywhere heavily timbered, and a bullet could go but a short distance before striking a tree. The unfortunates who were shot received their injuries at the hands of hunters too muddled to know a deer from a man, or a swaying bush from a bear. If high-power whisky could be kept out of the woods, high-power rifles would do no harm. In but few cases is the hunter who shoots another manly and humane enough to assist his victim. Generally he sneaks away, leaving the sufferer to die or recover as best he may. Then the papers tell of another hunter hit by a "stray bullet."

Andrew J. Ellis, Waukesa, Wis.

STOCK PUBLIC LANDS.

In March RECREATION I saw an article concerning the Cardeza party in which they were scored for the destruction of game. You say they took out licenses to kill 3, 5 or 8 caribou. I think a man who takes out a license to kill 5 or 8 caribou is as much a game hog as his unlicensed brother, who probably would also legalize his brutality if he could afford it. Moreover, I think the fact that a man owns a private preserve is no excuse for his killing 100 birds a day on that preserve. If game is so plentiful with him he should put some on the public lands, and give less fortunate men a chance. Our Legislature has just passed a law permitting owners and lessees of lands to kill hare and rabbits at all seasons. That is a great mistaken. In effect it permits the killing of anything at any time.

J. R .Jones, Dunmore, Pa.

ADIEU WOOD BUFFALO.

The wood buffalo, the noblest and one of the sole remaining remnants of the bison family not in captivity, are becoming rapidly extinct according to a well known Northern trader now in Edmonton. The haunts of the wood buffalo lie 2 days' travel from Fort Smith. For a number of years these animals have been protected by a law which prohibits the killing of them, but the 1st of January, 1902, this protection expired. Notwithstanding this attempt by the government to prevent the extermination of the animals, the trader referred to was of the opinion they would be extinct in a few years. "There is not an animal in the herd," he said, "that is under 3 years of age. The reason of this is that the wolves follow the bands day and night and kill the calves. There are only about 300 buffalo left and their range is in a country of about 200 miles square. —Edmonton (Alberta, N. W. T.), Bulletin.

The Canadian government should detail a company of its Northwestern mounted police to patrol the buffalo country to keep hunters out of it, and to trap and kill off the wolves.—EDITOR.

GAME NOTES.

Will you kindly inform me when the season closes on antelope in this State?

C. C. Keeler, Jr., Luella, Nebr.

ANSWER.

I regret to say that the open season for antelope in your State is August 15th to November 15th, but I trust that neither you nor any other decent sportsmen will kill an antelope in Nebraska or elsewhere at any time within the next 10 years. You and all the other good men in your State should unite in an effort to induce your State Legislature to pass a law prohibiting the killing of any antelope or elk before 1912. Nearly all the other States having any antelope have passed such laws and Nebraska should have been one of the first instead of one of the last to adopt this important measure.—EDITOR.

We have had a great ducking season; batteries the first week sold, on an average, for $100, and blinds did proportionately well. The Swan Island club, about the most prominent club on the sound, has placed a limit—25, I think—on the number of ducks a member may kill in a day. This is in strong contrast to the Currituck club, where all records were broken, all guns averaging 100 ducks the opening day. Such large bags were possible because the Currituck marshes were baited long before the season opened. Though there has been a notable increase in all varieties of water fowl, it would be well if all our clubs would follow the example of the Swan Island club and limit the slaughter.

A.S. Doane, Waterlily, N. C.

Out on one of the little flyways north of Cozad on Friday afternoon last, George A. Hoagland bagged 47 mixed ducks, but Mr. Hoagland can kill ducks where other men wouldn't even think of looking for them.—Omaha World.

I wrote Mr. Hoagland, asking if this report was correct. Here is his reply:

The report that I killed 47 ducks in one afternoon is not true. The only duck shoot I had last fall was about the last of

October. Then I spent a day with the teal and bagged 43.

G. A. Hoagland, Omaha, Nebr.

And that is at least 3 times as many as you should have killed in a day. Nowadays decent sportsmen are content to quit when they get 10 or 15 ducks in a day's shooting.—EDITOR.

In May RECREATION I read a communication from Quaker, Philadelphia, Pa. Having been a resident of Wyoming over 30 years, I can not pass that by, though I presume I shall make Mr. Quaker's bristles rise. I suppose it would please all the swine, if the people of Wyoming would say, "Come on, piggy, we have a few deer and antelope left, and you might possibly find a live elk ready to be slaughtered." Quaker is, undoubtedly, one of those men who stop in their career of destruction only when they can not find anything more to destroy. I assure him that the people of Wyoming will be only too glad to keep what game there is left and dispense with his porcine presence hereafter. C. W. Morgareidge, Wolf, Wyo.

The late Wm. S. Kimball of Rochester, N. Y., was the prime mover in introducing North Carolina and Virginia quail on this island in '89–'90. He also introduced cotton-tails, jack rabbits and white hares. People began shooting the quails before they had time to increase, so we had a 3-year prohibitive law passed by the Legislature. Since that expired the birds have had only the protection afforded by the State law. Natural conditions have prevented their becoming numerous. Neither Mr. Kimball nor I ever shot one, although they were turned out on the Kimball & Hills farms, nor have I heard of a man shooting them who was interested in bringing them here.

Isaac Hills, 'Sconset, Mass.

Let me confirm the statement made by Mr. John Sharp, State Fish and Game Commissioner of Utah, and ask you to turn your big guns on our law makers. Every word of Mr. Sharp's statement is lamentably true. You brand a man that takes more than his share a hog. Try to find as good a name for men who have it in their power to preserve the fish, yet willfully ignore and disregard their duty, and let millions of fish run out in fields and meadows to die each year. They, like their constituents, meanly begrudge the few cents it would cost to screen their ditches and drains.

H. D. Mapes, Ogden, Utah.

Wild game was never so scarce at this season of the year as now, attributable to the stringency of the laws of States tributary to Chicago's supply. In some sections it is almost impossible to ship out in a legitimate way and in others the restrictions on killing are so closely drawn as to prevent shippers from obtaining any considerable quantity. Formerly the venison supply was so ample that choice cuts cost about the same as the corresponding parts of beef, but this year prices are so advanced as to practically bar the use of deer meat from the tables of any save the wealthy. Venison is now quoted at 40 to 45 cents a pound, while at this time in previous years it was selling at 20 to 25 cents.—Chicago Tribune.

And the League did it.—EDITOR.

Frank Bates, Medaryville, Ind., shipped 30 quails to Chicago in violation of State law. He was prosecuted by the United States District Attorney, under the Lacey law, and on conviction, was required to pay fine and costs, amounting to $61.48. It is hardly likely Frank made enough on the 30 quails to pay this fine and have anything left worth speaking of to lay aside for rent day. It would be more profitable for him to deal in domestic poultry hereafter, rather than in game.

I thoroughly approve your campaign against the game hog. The only way game can possibly be preserved is for the people to co-operate with nature instead of always pulling against her. One way to accomplish this is by exposing the hogs and showing the foolishness of their acts. To me there is just as much pleasure in shooting at a target in the back yard as in shooting game, when there are no odds to overcome.

Subscriber, Kansas City, Mo.

Quails and grouse are so scarce here that they should be protected for a term of years. We would have good rabbit shooting if the farmers would allow hunting on their lands. They were so imposed on by hogs who shot poultry, tore down fences and did other damage, that they now refuse to allow any shooting whatever. A party from this town recently paid $27 in fines and costs for hunting on Sunday in an adjoining county.

Geo. F. Kunkel, Nazareth, Pa.

While in the vicinity of Richmond, Va., last spring, I noticed many large flocks of robins. A boy told me they were flocking to go North. Then he astonished me by saying he had killed and sold $17 worth of them and expected to kill lots more. So it seems we protect robins largely for the benefit of pot hunting boys in the South. It is a pity game laws can not be national in scope.

J. R. Bray, Waverly, N. Y.

I admire the gall displayed by A. E. McKenzie, of Denver, Colo., when he tried, in September RECREATION, to counter an anticipated roast. The bluff was a little too transparent, coming from a man who

admits having butchered a wagon-load of ducks. If there were 10 men like the editor of RECREATION, there would not be a game hog left alive, even in Denver.

John Nordstrom, Gothenburg, Neb.

I have just returned from Florida, where I found quails more numerous than in any other State I have visited. Everywhere in Florida I found members of the L. A. S. and readers of RECREATION. Mr. Pleas, of Chipley, told me the League was gaining steadily throughout the State, and that every year the game laws were better enforced. L. Shannon, Audubon, Minn.

On a recent trip to Pike county, Pa., I secured 2 bucks. One was a small 3-prong; the other was the largest deer that ever fell to my rifle, and I have hunted many years in Maine and Canada. The big buck weighed 218 pounds, dressed, and had large and symmetrical antlers.

J. E. Kneedler, Phila., Pa.

I wish Ohio would forbid the killing of squirrels, quails and grouse for a term of years. They are becoming exceedingly scarce in the Southeastern part of the State. In a forest where 2 small parties of campers killed 186 squirrels in one week a year or 2 ago, not a squirrel could be found last fall.

Wade McIlrath, Cleveland, O.

Game is scarce here, quails and prairie chickens being nearly gone. Our season for quails and prairie chickens is September 1 to January 1, yet I have seen men go out in June and July and kill quails. Rabbits are abundant, and in spring we have a few ducks and brant.

Geo. La Grange, Genoa, Neb.

Woodcock and grouse were scarce last season. Quails were abundant but undersized. Our Game Commission hopes to secure the passage of a law protecting grouse for a term of years. Deer are frequently seen in Washington county.

E. R. Lawrence, Westerly, R. I.

Last winter was a favorable one for our quails, though they were mercilessly shot before and after the shooting season. Pinnated grouse seem to about hold their own. Fox squirrels are fairly plentiful, cotton tails almost a nuisance.

Daniel Arrowsmith, Ellsworth, Ill.

The use of decoys for water fowl and shore bird shooting should be prohibited. Such shooting can hardly be called sport; anybody can hit birds on the ground or water. At best it is pot shooting at an alighting or rising flock.

G. B. Gardiner, Peace Dale, R. I.

I notice in May RECREATION that G. H., of Mason City, Iowa, says rabbits are a nuisance in this State, and that ferrets should be used to hunt them. He is mistaken. Rabbits are not over abundant, and they should have a close season like all other game.

F. J. Nichols, Atlantic, Iowa.

The Brown's Tract Guides' Association held their annual meeting at Boonville, January 9, and elected the following officers: President, Richard Crego; Vice-President, Garry A. Riggs; Secretary and Treasurer, A. M. Church.

There are now 400 members belonging to the association and the organization is doing excellent work for the protection of game in the Adirondack forests.—Utica (N. Y.) *Press*.

Rabbits are so abundant here that it is no fun to hunt them with a shot gun. Our duck shooting has been spoiled by the draining of the swamps. I got 5 ducks one day last season, but that was exceptional luck.

Jack Mallard, Rochelle, Ill.

Duck shooting was better last fall than for several years. Had a 10 days' camping and shooting trip and killed in all 59 ducks. My biggest bag in one day was 14. I could have killed more, but was satisfied. S. E. Sangster, Pt. Perry, Can.

Game here last season was more plentiful than usual, particularly grouse, quails and rabbits. Some of the boys have had a few good days with black ducks, which also seemed more abundant than they have been the past 2 seasons.

E. W. S., Westerly, R. I.

Quails and rabbits are plentiful, but grouse are scarce. You could not find a woodcock here if you traveled 25 miles.

Alex. Webster, Beaver, Pa.

I am much in sympathy with your war on game hogs. Keep it hot and heavy. Turn the 30-30's on them.

L. A. Jordan, Saylesville, R. I.

Game has increased materially here since the passage of the law forbidding its shipment out of the State.

L. B. Gilmore, Blooming Valley, Pa.

Game is scarce here. Unless an extended close season is put on prairie chickens they will soon be gone. Everett Brown,

Pleasant Grove, Ind.

Quails are abundant here. Other game is scarce. So, also, are fur bearing animals.

Chas. Wilson, New Lenington, Ohio.

The severe weather and deep snow of February killed off most of the quails here.

H. T. Rice, Painesville, Ohio.

ALMANAC FOR SALT WATER FISHERMEN.

The following will be found accurate and valuable for the vicinity of New York City:

Kingfish—Barb, Sea-Mink, Whiting. June to September. Haunts: The surf and deep channels of strong tide streams. Baits: Blood worms, shedder crabs and beach crustaceans. Time and tide: Flood, early morning.

Plaice—Fluke, Turbot, Flounder. May 15 to November 30. Haunts: The surf, mouth of tidal streams. Baits: Shedder crabs, killi-fish, sand laut. Time and tide: Ebb, daytime exclusively.

Spanish mackerel—Haunts: The open sea, July to September. Baits: Menhaden, trolling—metal and cedar squids.

Striped Bass—Rock Fish, Green Head. April to November. Haunts: The surf, bays, estuaries and tidal streams. Baits: Blood worms, shedder crabs, Calico crabs, small eels, menhaden. Time and tide. Night, half flood to flood, to half ebb.

The Drums, Red and Black. June to November. Haunts: The surf and mouths of large bays. Bait: Skinner crab. Time and tide: Day, flood.

Blackfish—Tautog, April to November. Haunts: Surf, vicinity of piling and old wrecks in bays. Baits: Sand worm, blood worm, shedder crabs, clams. Time and tide: Daytime flood.

Lafayette—Spot, Goody, Cape May Goody. August to October. Haunts: Channels of tidal streams. Baits: Shedder crabs, sand worms, clams. Time and Tide: Day and night flood.

Croker—July to October. Haunts: Deep channels of bays. Baits: Shedder crabs, mussels. Time and tide: Day flood.

Snapper—Young of Blue Fish. August to November. Haunts: Rivers and all tide ways. Baits: Spearing and menhaden; trolling pearl squid. Time and tide: Day, all tides.

Sheepshead—June to October Haunts: Surf and bays, vicinity of old wrecks. Baits: Clams, mussels, shedder crabs. Time and tide: Day, flood only.

New England Whiting—Winter Weak-fish, Frost-fish. November to May. Haunts: The surf. Baits: Sand laut, spearing. Time and tide: Night, flood.

Hake—Ling. October to June. Haunts: Open sea surf, large bays. Baits: Clams, mussels, fish. Time and tide: Day and night, flood.

Weak-fish—Squeteague, Squit. June to October. Haunts: Surf, all tideways. Baits: Shedder crabs, surf mullet, menhaden, ledge mussels, sand laut, shrimp. Time and tide: Day and night, flood preferred.

Blue Fish—Horse Hackerel. June to November 1st. Haunts: Surf, open sea and large bays. Baits: Menhaden, surf mullet and trolling squid. Time and tide: Daytime; not affected by tides.

LAKE MASHIPACONG.

BARTON W. EVERMANN.

In the New Jersey mountains, some 10 miles South of Port Jervis, on the Erie railroad, lies Lake Mashipacong. The drive from the railroad station to the lake is an interesting one. Crossing the Navesink near its mouth in the edge of the town, the road for a few miles passes through well kept farms and by comfortable farm houses. Here the road is smooth and the team jogs along at a fairly good speed, but not too fast to prevent one from taking in the many beauties of the scene around. Then the road makes a turn to the left and begins to ascend. The grade becomes more and more steep, the rocks in the road become distressingly numerous, the horses slow up, the driver remarks that "it is best to go a leetle slow along here," and we brace ourselves and hold on. We soon see, however, that though there are some rocks in the road they are neither large nor troublesome, and, dismissing them from our mind, we take note of the things by the wayside. The road is narrow, and the trees, in many places, arch it over, forming brilliant canopies under which we drive. It was early October, the best of all the year, when the trees are glorious in their liveries of golden yellow, russet, red, and changing green. The maples and oaks are richest, while the chestnuts, though yet green, are beginning to show yellow on the exposed leaves. Most of the timber is second growth and only an occasional old tree is seen. There is one, in a field—a huge old chestnut with gnarled trunk and scraggy branches—standing out in the open and receiving no protection from sun or frost. Here is another, by the roadside; an old patriarch which has been spared these 100 years, since the farm was opened, mayhap by the great-grandparents of the honest, frugal farmer who to-day dwells in the house hard by. What happiness that old tree has brought to the 3 or 4 generations of children who have played in its shade, climbed among its branches, and eaten of its delicious, wholesome fruit! Sturdy country lads and lasses they doubtless were! The old tree has seen them coming on in overlapping numbers, the older ones growing still older and coming to the tree less often as time went on, and finally returning only at long intervals or not at all; but little tots coming on more or less regularly every year to take their places; and the immortality of the child to the tree and of the tree in the mind of the child is not a mere fancy.

Only a few children play about the old tree now, for we found ripe nuts on the ground under it. I wonder if many of those who knew it in the days agone are still alive; do they sometimes yearn for the shade and the cool and the peace of the old chestnut tree? I hope they do; for one is not happy when he forgets his childhood and the scenes of childhood's days.

We go on up the hill slowly and admiringly. The trees crowd in upon us and the way grows narrower. At one place the driver stops and bids us look back down the road to the valley below and the blue hills far beyond. The view was beautiful;

even the driver's soul was touched by its beauty; and the little child on the seat beside me clapped her hands in ecstacy, then gazed in open-eyed wonder. Naturalist, child and driver all felt heart thrills as they drank in the beauty and restfulness of the scene. All are poets more or less; only the proper stimulus is needed.

Soon the lake was reached and, after a clean and wholesome dinner, which the good housewife soon prepared for us, we wended our way across the little meadow and down to the lake.

Lake Mashipacong is a pretty little body of water nestling among low hills and covering about 100 acres. The shores rise well but gently everywhere except at the head and at the outlet. They are, in most places, well covered with a heavy growth of chestnut, maple, alder, oaks, sassafras, etc. The shores, except at the upper and lower ends, are dry and admirably suited for cottage locations. At the head of the lake is a large cranberry marsh in which I spent most pleasantly an entire afternoon, so many interesting things did it contain. Great beds of soft, yielding sphagnum moss in which one sinks to his knees; ozier willows, buttonbushes and other small, bushy shrubs here and there; isolated pitcher plants resting on the sphagnum, the bright green and purple of their leaves contrasting pleasingly with the pale or bleached green of the sphagnum; and then a multitude of little cranberry bushes scattered profusely everywhere, their vari-colored berries resting lightly on the soft sphagnum bed. Bright red, blood red, wine-colored, purplish, and waxy or creamy white, with red and purple spots and blotches, they were; jewels in a setting of modest green. And what quantities there were of them!

The immediate shores of Lake Mashipacong are in many places somewhat rocky but low and easily accessible. In the shallow water near shore are some large boulders, gravel and slabs of sandstone; and patches of water-shield and white water lily grow here and there. Near the head of the lake the fragrant, waxy water lilies were still blooming.

Many soundings were taken and the depth of the lake was determined. One line was run the long way of the lake and as nearly through the middle as possible. A sounding was taken every five oar-strokes, which gave 27 soundings. The depth was found to be uniformly 12 to 15 feet. The greatest depth was at the 12th, 13th and 14th soundings from the South end. Another line was run nearer the West side and 18 stations were made, the greatest depth found being 14½ feet and the least 12 feet. Of the 45 soundings taken, one was at 11 feet, 13 were at 12 feet, 10 were at 13 feet, 17 were at 14 feet, one was at 14½ feet, and three were at 15 feet. It thus appears that the depth is remarkably uniform. The bottom in all the deeper parts is of soft mud or decaying vegetation.

October first, at 4 P. M., when the temperature of the air was 66°, that of the surface of the water was 64° and that of the bottom, at a depth of 10 feet, was 62°. At another station the surface temperature was 64° and the bottom, in 12 feet, 62.5°.

Animal life in Lake Mashipacong is abundant. Fish food is there in great profusion and the lake can support a great number of such game and food fishes as the large-mouth black bass, pickerel and pike. Some collecting was done and the following species of fishes were found to inhabit the lake:

1. Common bullhead, *Ameiurus nebulosus*. Quite common.
2. White sucker, *Catostomus commersonii*. Said to be common.
3. Chub sucker, *Erimyzon sucetta*. Several young examples obtained.
4. Roach, *Abramis crysolencas*. Quite common and excellent food for bass.
5. Common eel, *Anguilla chrysypa*. Said to be common at times.
6. Banded pickerel, *Lucius americanus*.
7. Common Eastern pickerel, *Lucius reticulatus*.

Both of these pickerels seem to be quite common and to reach a good size, the latter often weighing 4 pounds or more. Those usually caught run from ½ pound to 2 or 3 pounds. Both are excellent game fish and delicious food when fried or baked. These 2 species may be readily distinguished. The banded pickerel has usually 12 (11 to 13) branchiostegal rays, 11 or 12 rays in the dorsal, and 11 or 12 rays in the anal; while the common Eastern pickerel has 14 to 16 branchiostegal rays, 14 dorsal and 13 anal rays.

In the former the color is dark green, the side with about 20 distinct curved blackish bars; while the latter is greenish, with many dark curved lines and streaks, mostly horizontal and always more or less reticulated, hence the specific name.

8. Common sunfish or bluegill, *Lepomis pallidus*. Common.
9. Large-mouth black bass, *Micropterus salmoides*. A small plant of this important game fish was made in this lake some time ago. The lake is splendidly adapted to this species and it will no doubt thrive well in it.

The following species of mollusks were collected in the lake:

Anodonta cataracta, *Planorbis campanulatus*, *Limnæa catascopium*, *Sphærium rhomboideum*, and *Sphærium striatinum*. The first is a fresh water mussel or clam,

the second and third are small snails, and the other 2 are small bivalve shells.

Apparently the most abundant animal in the lake is the little newt, or eft, *Diemictylus viridescens*, which in the fall literally swarms everywhere in the shallow water along the shores. They were seen everywhere and hundreds of them were collected. This little salamander lives only for a portion of its existence in the water, the rest of its life being spent on the land. It does no harm in any way, but doubtless serves to some extent as food for carnivorous fishes.

CONCERNING THE NORTH DAKOTA HERD.

I see from the December number of RECREATION that an attorney of New York has been found so hard up for a job as to take up the case of those game hogs referred to on page 360 of November RECREATION. I think he should be glad to settle it out of court, for any decent attorney would be ashamed to take it into court; but if he does have a trial, your 32,000 loyal subscribers, of whom I am one, will contribute enough to fight a dozen such cases.

What gentleman would want or should catch more than a dozen such bass in a day! What could he do with them? Nothing but make a holy show of himself. He should have left the greater number of those fish in the lake, to propagate for future use. It is like such men to try to hide behind the position they hold in that county by the suffrages of decent people.

Hundreds of beautiful lakes all over the Northern part of our grand old State of Ohio have been depleted by just such swine, so we are compelled to go hundreds of miles North or East to get any good fishing. Keep right after the fish and game hogs, Brother Shields, and every true, loyal gentleman sportsman in America will applaud your action and give you financial aid.

A. G. W., Toledo, Ohio.

You have sized up correctly the fish hogs whose pictures appear in November RECREATION, on page 360. They are of the kind we soldiers used to hunt in Arkansas, the razor back, long snoot kind. It was a case of necessity; we had to have meat, such as it was. The devils in this North Dakota herd ought to run them into the deep blue sea. I see one of them is of my profession. I am sorry for that, and until he so lustily squealed I had hoped he was an unlucky dog Tray in bad company. His picture certainly makes him look as though he ought to "go 'way back and set down."

T. M. Pierce, Bozeman, Mont.

I take it that the readers of RECREATION will return a verict at once and "without leaving their seats," that the herd of swine found on page 360 of November RECREATION have not been, and could not be, libelled. The English language does not embrace libellous words when applied to such wretches. Thanks to the photograph, we need not speculate, and Attorney Guthrie need not speculate, as to whether it is a lie or not. We believe our own eyes, and he ought not to deceive himself. I like to hear them squeal.

Henry A. Morgan, Albert Lea, Minn.

N. B.—This is not confidential.

I am glad you handle the game and fish hogs, market hunters and game butchers with gloves off. I do not think you need give yourself any uneasiness about the clients of Mr. Ledru Guthrie ever bringing suit against you for the scalding you have given them. Such men have not the nerve to meet you in court. You have my support in this matter as well as that of every other true sportsman. I hope you and RECREATION may live years yet, if for no other reason than to show up such would-be sportsmen to the world in their true light.

C. F. Dill, Greenville, S. C.

My judgment on the picture in November RECREATION, page 360, is that the 6 swine were let off too easily. There should be a law to prohibit any one of them from having in possession any firearm, rod, reel, line or any other contrivance that can be used to kill or take any animal, bird, or fish; or to have in possession any animal, bird, fish or part thereof, under a penalty of $1,000 and 10 years in State's prison, with the penalty to be doubled at every offence.

L. A. S. 2511, Fishkill Plains, N. Y.

When the November number of RECREATION came my wife looked at the picture on page 360, and said, "They ought to be roasted for being fish hogs." That expressed her opinion of the 6 alleged men. For 6 men to take 500 fish in half a day is cold blooded slaughter. If all other men would do as those 6 did there would not be one little shiner left in one year, to say nothing about pike. A coat of tar and feathers applied to those 6 men in the public square at midday would be a good example. C. N. Truman, Ouray, Colo.

In my opinion you have not libelled the North Dakota herd. The English language does not contain words sufficiently strong to express the contempt in which such porcine bipeds should be held. You have the constitutional right to demand a trial by a jury of your peers. As you are a true sportsman, demand a jury of sports-

men, and you need have no fear of the result.

C. E. Oliver, Portland, Oregon.

Concerning the North Dakota herd, it seems to me the judge and his lawyer friend, with their threatened lawsuit, are barking up the wrong tree. I can count about 250 fish in the illustration, and there could easily be as many more in the strings which do not show in the cut. At all events, it is a most hoggish exhibition, and well deserves the exposure given it.

J. W. Kerlin, Harrisburg, Pa.

In regard to the picture and comments on page 360 of November RECREATION, I believe you there express the sentiments of every true sportsman in the land.

One can not help smiling at the vulgar taste evidenced by that picture.

B. S. White, L. A. S. 7520,
Morgantown, W. Va.

The men shown on page 360 of the November issue of RECREATION should have been strung up instead of the fish. You were perfectly right in saying what you did, my only regret being that you didn't say enough.

Geo. M. Ockford, Jr., Ridgewood, N. J.

CUBAN FISH.

One fine morning 2 others and I sailed out from Tunas de Zaza, on the South coast, in a little sailboat, to try the fishing. We made for an island, Cayo, blanco, 4 miles out. We anchored just inside one corner of the island for protection from the sea swells. Fish were caught rapidly; we had enough in 40 minutes to satisfy us, mostly sea bass. However, it takes skill to pull in a fish under the conditions forced on one in Cuba. The hooks are always too large for the fish one usually finds. Again, the bait that the fish take best is the ordinary small shrimp, and these are so soft that a nibble will tear them off. Hence it comes down to knack of pulling strongly at the right fraction of a second to hook the fish. We landed on the island and took a short tramp, picking up a few star fish and conch shells; then started on our return. The wind died out and we killed time by looking at our catch. We discovered that every bass had what the natives call a sea cockroach in its mouth. The other species of fish were not so burdened. This parasite apparently gets in the fish's mouth when small, and grows as the fish grows, in some instances becoming so large as to fill the mouth entirely.

The sea cockroach has 6 legs. It hooks these in the gills of the fish, its head toward the front, and clings so firmly that it can be removed only with force.

The local fishermen catch the large sea sucker by stretching a net along a rocky shore, 100 to 150 feet out. Then they row up and down several times, near the edge of the bank, slapping the surface of the water with flat boards. The fish dart out and run into the net. This is done just after dusk or in the moonlight. I call these fish suckers, for they resemble the fresh water sucker, only they are larger. They weigh 8 to 12 pounds, and will not bite on a hook. A larger fish, 2 to 2½ feet long, is called sabana. Its sides are slivery white, the back being darker. The sabana will not take the hook either, as a rule, but plays around a dock or a boat waiting for scraps of bait. It is good sport to feed them and lead them near enough to spear; but they are strong and will frequently break away, leaving only a few scales on the prongs.

Courtland Nixon, 1st Lt. 2d Inf.,
Sancti Spiritus, Cuba.

NIBBLES.

Joe Eaton of Beatrice, Neb., was arrested in December last by Game Warden Geo. Maxfield with 36 fish in his possession which had been caught illegally. Eaton was taken before Judge Ingman of Beatrice, where he was convicted of violating the State law. The judge gave him 30 days in jail to think the matter over. If Joe could have had his fish to eat while in jail he would have had plenty of time to pick the bones out of them, but he probably was not so well fed there as he had hoped to be at home.

There is fine salmon trout fishing in Okanagon lake. Trolling is the method usually employed, though I have fished successfully with rod and line from rocks overhanging deep water. Fish are occasionally taken weighing 15 to 25 pounds. The last time I was trolling I caught 3 large ones in 2 hours, and could have secured more had I desired to. There seems to be no close season for fish in Okanagon.

Alexander Crawford,
Okanagon Mission, B. C.

J. D. Levy, a fish dealer, and John Hubert, a restaurant keeper, both of Butte City, Mont., were arrested by State Game Warden W. F. Scott on a charge of selling and serving trout in violation of the laws. They were convicted by Justice Olson, Hubert being fined $25 and Levy $50; and thus the good work goes on.

Will some reader of RECREATION tell me where I can find reasonably good fishing within 100 miles of this place?

H. C. Wurtsbaugh, Richwood, Ohio.

GUNS AND AMMUNITION.

Anybody can keep on shooting all day, but it takes a gentleman to quit when he gets enough.

INFORMATION FOR MR. INGALLS AND OTHERS.

Replying to the inquiries of L. O. Ingalls, would say that for a load for foxes I advise him to find out by a series of tests what sizes of coarse shot his gun will shoot best. A gun sometimes handles one size much better than another. Then by testing different proportions of powder and shot he can decide which is most suitable in pattern and penetration.

I once owned a gun which seemed especially adapted to No. 3 shot, and when hunting anything that required coarse shot I used that in preference to either Nos. 5, 4 or 2.

I never saw the 32-40 soft point bullets used, but as soft nosed bullets require a high velocity to mushroom perfectly, I do not think they would do so as readily as one cast with a split joint, such as is recommended by the Ideal Manufacturing Co. Close the mould on a narrow strip of paper and pour in the lead. The paper may be half as wide as the length of the bullet if desired; but set it back a little from the point so the split will not reach quite to the end, thus holding the point together until it is opened by striking some object.

For loading buckshot I have tried every plan I ever heard of. Dipping them in beeswax is unsatisfactory, as there is no certainty about when they will separate. I have seen smaller shot carry 80 yards when waxed, and go through a board like a bullet. Besides, the wax fouls the gun to a great extent.

Wire cartridges are good but the cases are expensive, and do not always open at the same distance. I have made cases by rolling tough paper around a stick, gluing a wad in the front end and folding the paper together at the back; but they also are uncertain. The most satisfactory way I know of is this: Select a size of shot that will chamber loosely in the muzzle of the gun. Some of the larger sizes will take 3 in a triangular layer. Of smaller buckshot you can select a size that will take one in the center and 4 or 5 around it, leaving a little room so they will not clog in the muzzle. When loading shells put in a layer of buckshot and fill the spaces with No. 10 or No. 12 shot, then another layer of buck, and so on. It is surprising how close the fine shot will hold the buckshot together.

Smokeless powder does not ignite so readily as black, as may be seen from the necessity of using such powerful primers. A strong crimp is necessary, to hold the shot a small fraction of a second, until combustion is thoroughly under way.

I was rather surprised to see the statement by some of RECREATION'S readers that a .303 Savage would outshoot a 30-40 Winchester, or, as some say, "any gun on earth." The penetration of a 30-40 is given as 58 boards, 7/8 inch thick, against 33 for the Savage.

I have shot a Winchester 30-40 against a Savage .303 for penetration, both guns using soft point bullets, and the Winchester was the winner. As for a .303 outshooting "any gun on earth," it does not seem reasonable that a .303 bullet, with a velocity of less than 2,000 feet a second, should be more effective than a 40 caliber, with a velocity of 2,500 feet a second.

I have made many experiments with bullets; one of them resulted rather disastrously. About 4 years ago a writer in RECREATION told about making explosive bullets by placing a 22 caliber cartridge in a mould so that the base of the cartridge would be at the point of the bullet, and casting the lead around it. He said it could be done with safety. First I tried several cartridges in the stove, and as they did not explode for some time I thought the scheme was all right, so placed one in the mould and poured in the lead. After I had picked the melted lead out of my hair, skin and eyebrows, and straightened up the cutoff of the mould, I wondered if I was the only idiot in the business. It was surprising how that little 22 scattered things.

E. L. Stevenson, Honolulu, H. I.

I advise D. F. N., Los Angeles, Cal., not to file down a notch to make a single trigger pull easily. Instead, take the hammer to a tinner and have him fill the too deep notch with solder. That can be done without drawing the temper of the hammer. Then with a knife cut away the solder to the depth you want the notch. If you attempt to file you remove the tempered surface, and the new surface, being soft, soon wears away.

In reply to L. O. Ingals, West Durham, N. Y., for a 12 gauge a good fox load is 3 drams ducking powder, No. 4, or its equivalent in nitro, with good double felt wads; 1 ounce No. 4 shot, and 1 black edge wad. The 32-40 soft nose is effective on deer. The best way I have ever loaded buckshot is as follows: Powder to suit, and buckshot that chamber loosely in muzzle of gun. If 3 chamber, place them as near center of shell as possible and cover with enough No. 10 soft

shot to fill all spaces. Put in 3 more and cover with 10's. Two layers are enough. The fine soft shot are merely to hold the others in place. This load will give uniform results if good powder is used, also good penetration. Stubbs, Orwell, O.

Mr. Ingalls, of New York, wishes to know how to load buck shot for close, even pattern. Load powder and wad as for fine shot. See that the buck shot chambers loosely in shell. Then run shell full of melted tallow around the shot. Put on shot wad before the tallow cools. This gives an extremely close pattern, and is the load that was used by Sauntag and Evans in their hold-up at Fresno, Cal.
Chas. Latham, Dailey, Colo.

THE SAME OLD TROUBLE.

San Francisco, Cal.

Editor RECREATION:

The last day of June, 1887, I left San Francisco on the evening train, and after 30 miles of railroad travel I was met at the station and driven into the foothills. There we had a cabin that we used as headquarters during the open season for deer, which was then July 1st to October 15th.

The next morning, long before daylight, we were up, and, after a hasty breakfast, each of us took a different course for our day's hunt. My way led up a long ridge, to some 500 acres of comparatively clear, rolling country surrounded by thick brush, which was a great place for deer. By the time I had reached this clearing, the sun was just coming up, and it was getting almost too late to find the bucks feeding. Nevertheless, I walked on and followed around the edge of the clearing, intently watching for signs of deer. I had gone but a short distance when a big doe jumped from behind a bunch of brush, 30 feet away. I bleated and she stopped short and looked at me, not over 25 yards from me. How hard I strained my eyes, looking for horns! There were none, so I contented myself by pointing my .44-40 Marlin at her and thinking where I should plug her if she were a buck.

Within the next hour I saw no less than 7 does and fawns, but nary a buck. My attention was finally attracted to a track in the trail which I knew at once was made by a monster buck. I decided to try for him when he should come out to feed at night. I crossed the ridge to the big spring, and spent the rest of the day dozing in the shade of an oak that spread its limbs over the spring.

About 5:30 P. M. I started out again with the intention of getting Mr. Buck. I walked slowly and carefully back along the trail, stopping at each clump of bushes and looking carefully ahead before going on to the next bush. I had passed the place where I saw the track in the morning, and as I looked again my heart missed a beat, for there, not more than 30 yards away, was a monster buck, looking right at me. He had seen me before I saw him, and I knew if I made a quick move it would be all off, as he was in such a position that one jump would take him out of sight. I gazed at him a few seconds, and then gradually sank to my knees, hoping to bring my rifle up to my shoulder at the same time without any sudden move; but the wary old cuss was suspicious, and with one jump he disappeared from view.

In an instant I made up my mind that if I could quickly reach the point where he had gone in I might see him cross a little twale I knew lay in the direction he had saken. I made a run for the trail, and as I reached the edge of the brush I saw him moving off slowly about 75 yards distant. A bleat from me stopped him an instant, and, as he looked back I held my breath to steady my gun, which owing to my rapid breathing, after my short run, was going around at a great rate. As I caught him just right, I let go and struck him in the shoulder, a little too far forward. The shot turned him completely around, and so bewildered him that he forgot his cunning, and instead of leaping to cover he staggered back down the same trail he had gone over.

Without taking the gun from my shoulder, I pumped down the lever to reload, but it didn't work. It failed to extract the empty shell and the next shell coming up jammed in the action. The big buck seemed dazed as he came toward me, getting closer and closer, until I could plainly see the blood pumping out of the wound in his shoulder. He was then only about 50 feet from me and still coming on. Of course, I got buck fever then, but not so badly but that I could curse the Marlin Arms Company, collectively and individually, the man that sold the gun and the man that made the cartridge.

I reached for my knife and tried to extract the shell and push the other one back so as to free the action. Anyone who has ever owned a Marlin rifle knows how I felt. By that time the buck had reached a cross trail which led up through a bed of ferns and under some bay trees. He staggered up this trail and out of sight under the drooping branches of the trees. I could see the bloody foam drop from his mouth, and the blood run down his foreleg. If I had had one more chance I could have stopped him, but my gun was as useless as a club.

As the deer disappeared under the trees I sat down on the ground and attacked the gun, resolving to get that shell out or break the gun. After several minutes' work, I succeeded in getting the shell out, and the gun to work again.

Crossing over to the spot where the buck had turned up the trail, I followed the broad trail of blood to where he had laid down and got up again. He had left the trail and broken blindly down hill through the brush. Then a pool of blood showed where he had stopped; and again as he went on the faint sign showed that a clot had stopped the flow, until he had stumbled over a log, and it had broken out afresh.

It was getting dusk and I stumbled on, expecting to come on him at any minute. As it grew darker it was harder to follow the track. At last in a dense growth it became so dark I had to give up. Tying my handkerchief on a tree so I could pick up the track in the morning, I made my way back to camp, which I reached about 10 o'clock.

The next morning we returned to the spot where I had given up the track the night before, and spent 3 or 4 hours hunting for the deer, but it was of no use. He had either got entirely away or had died in some place where we could not find him.

I still have the .44-40 Marlin, for I have never found anyone for whom I have such a dislike that I would give it to him. It stands in my gun case, while a .38-55 Winchester takes its place when I am after game. E. A. Greene.

DEFENDS KRAG-JORGENSEN.

In your May number I see that R. A. R., of Angelica, N. Y., is somewhat disturbed because the War Department is replacing the models '92 and '95 with the models '96 and '98 Krag-Jorgensen rifles, and calls this gun an inferior foreign arm. Permit me through your pages to enlighten him.

The Krag-Jorgensen rifle was adopted in 1892 after a series of competitive tests conducted by a board of army officers. All inventors and manufacturers were invited to submit rifles to the board. A great many were submitted and the tests were conducted with great care. The Krag-Jorgensen made the best showing in those tests; and consequently it was adopted, and its manufacture begun at the Government arsenal at Springfield, Mass. The rifle has since stood the tests of 2 wars in tropical climates, and no fault has been found with it by the men who have used it. I am familiar with the rifles in use by the principal armies of the world and am firmly convinced that our weapon is superior to any of them. As a result of 8 years' use some minor improvements have been suggested, and these are embodied in the '98 model. This gun is to all appearances the same as the model '92, except that the cut-off turns down instead of up, and some of the smaller parts have been straightened. The rifle is foreign only in the name of its inventors. Its official name is "The U. S. Magazine Rifle."

Its maximum range is 4,066 yards, initial velocity 2,000 feet a second. Its accuracy is unquestioned. Even with the plain, open sights, without wind-gauge or correction for drift, our soldiers have made scores on the range that could not be made with the old Springfield, although equipped with peep sights, automatic correction for drift, and wind gauge. A wind gauge sight is now being issued, and we expect some remarkable scores will result from its use.

As a sample of the accuracy of this U. S. magazine rifle I quote the following from the Army and Navy Journal, "Capt. S. S. Stebbins, of the Twelfth New York, in 15 consecutive shots at Creedmoor scored 74 points out of a possible 75 at 500 yards with the Krag-Jorgensen rifle. This speaks well for the arm; also for the man using it, Captain Stebbins having only lately taken up practice with the Krag."

I recommend that R. A. R. procure the report of the Chief of Ordnance, U. S. Army, for 1892 and read the description of the rifles and the tests to which they were submitted. C. E. Stodter,

1st Lieut., 9th U. S. Cavalry,
Guinobatan, Aloay, P. I.

THEY STILL ADVISE PETERS.

Baltimore, Md.

Mr. J. H. McKibben, Secy.

Peters Cartridge Co., Cincinnati, Ohio:

Dear Sir:—I read with surprise and regret in the May issue of RECREATION that you have withdrawn your ad. from this magazine on account of offence taken at one of their correspondents. I have been a user of Peters shells a number of years; in fact, I use no other, as I consider them superior to any for sure fire, accuracy and penetration. When anyone finds fault with them I always defend the shells and question the gun being warm or the springs weak.

RECREATION is one of the finest magazines of its kind published and is doing a great work in its field. I can not help thinking you are doing it and its editor an injustice in withdrawing your advertisement. I write you this not to criticise your business methods, but as a friend of both Peters cartridges and RECREATION. I sincerely hope you will reconsider your determination to withdraw your advertisement, as you have enough defenders to more than down any adverse criticism.

Yours truly, J. C. S.

Watertown, N. Y.

Peters Cartridge Co.,
Cincinnati, Ohio:

Dear Sirs—Seeing you have taken your ad from RECREATION, I take the liberty of writing you. You have made a great mis-

take, as your ad reached many sportsmen. I have used your ammunition for some time and always found everything satisfactory. Sincerely hoping you will see your mistake, I am, Very respectfully,

C. E. Van Order.

VARIOUS WINCHESTER MODELS.

I have used rifles since 1885, mostly Winchesters. Two years' experience with a model '86, 45-90-300 Winchester convinced me that I did not want it. It would put, on lucky days, 2 shots out of 10 in a bull's eye at 150 yards, with a rest. It made more noise and kicked harder than a 10 bore, and whatever part of a deer you hit with it, it was sure to spoil one-third of the meat.

While using a 40-82-260, model '86, I narrowly escaped a serious accident. I reload my shells, and in one I put what I supposed was 12 grains of smokeless powder. I was using an 82 grain measure with a wad pushed into it far enough to limit its capacity to 12 grains. The wad had slipped down to the 50 grain mark, and I put that amount of powder in one unlucky shell. I shot it at the 100 yard target. The gun kicked like a mule, the bullet spread over the target like bird shot, and the barrel and receiver were so swelled and wrenched as to be useless. Why it failed to burst is a mystery.

My present gun is a 38-72-233 box magazine Winchester, which I use with metal patched mushroom bullet and 27 grains Du Pont No. 1 smokeless. It has flat trajectory, plenty of smashing power, is accurate and light. In my opinion there is no better all around gun. G. W. Chambers,

Marion, Ind.

TO AVOID RUST.

Seeing several inquiries for a good gun grease and an approved method of protecting a gun from rust, I submit this:

Sperm oil is good and will not gum; but being thin, neither will it keep its place long. It runs down, leaving upper parts of barrel exposed. Winchester gun grease is apparently oil, perhaps sperm oil, thickened with Japan wax. It will stay where you put it, and so is pre-eminently the stuff.

Clean your gun and, being sure it is dry, oil freely with Winchester gun grease. Have a cartridge or an empty shell in breech and place a cork tightly in muzzle. It is then safe for a long time.

If you are going to Europe and don't expect to come back for 10 years, tear a strip off an old blanket or other thick woolen cloth. Tie or sew a cord to one end, fasten a lead weight to the other end of cord, saturate the strip with the grease, drop weight through barrel and draw the strip into bore, filling it tightly. Then if you lock up your gun so the children can not pull the rag out, you have the cinch on it.

I got this idea from a back number of RECREATION.

Moral: If you don't know what you want to know consult your back numbers of RECREATION.

Geo. Walker, Parkman, Wyo.

SMALL SHOT.

About how many thousand shots, with metal jacketed bullets, will the Savage rifle stand before becoming inaccurate from wear? Will it wear as long as a 45-90? Is the Savage effective at 1,000 yards? What is its penetration at that distance?

S. H. Freeman, Nordhoff, Cal.

ANSWER.

I do not know the exact life of a Savage rifle barrel. I have seen a rifle that has been fired over 7,000 times. The sharp edges of the rifling show a little wear, but not enough to affect the accuracy or penetration of the arm. With reasonable care in cleaning, the Savage rifle barrel will last longer than the 45-90. Savage smokeless powder should be used, as it contains nothing injurious to the barrel steel. Smokeless powder that contains nitro glycerine will shorten the life of a barrel materially. The smashing power of the .303 Savage expanding bullet at a distance of 1,000 yards is sufficient to kill moose, bear, caribou, etc. The penetration is 23 to 25 inches in clear pine at that distance.—EDITOR.

I have owned and used a Stevens No. 45 Ideal 25-25 the last 3 years. For an all around gun to kill anything from a squirrel to a deer there is none better. I have all the Ideal tools and can make any weight bullet from 46 to 106 grains. For small game I use the 46 grain bullet with 3 grains DuPont smokeless rifle No. 1. For deer I use the 86 grain bullet with 8 or 9 grains of the same powder. With one side of my belt filled with the small loads and the other with the large, I am always ready for anything. I have killed deer at 200 yards with the large load. Have also killed 2 deer with the small load at 75 yards. However, I would not advise any but a good shot to hunt deer with a 25-25. The greatest sport I have is shooting rabbits and grouse. There is no law against killing rabbits and the more one kills the better it is for the ranchmen. I can reload my shells at less than the cost of 22 shorts. I should like other readers of RECREATION to give their experience with the 25-25. I. A., Buena Vista, Colo.

I am a strong friend of the 30 caliber as an all around gun. I reload my own cartridges for short and medium range, and can recommend the following: For squirrels, rabbits, etc., 8 grains Du Pont No. 1

rifle powder and 100 grain alloy bullet, 10 parts lead to 1 part tin, cast in Ideal mould 30810 and sized. Also 5 grains Du Pont smokeless shot gun powder with the same bullet. The latter does not hold up so well, but does good work at 50 yards or under. I would not advise larger loads of the shot gun powder, as they might prove dangerous.

For ranges from 100 to 300 yards I use 15 grains Du Pont No. 1 and Ideal bullet 3084, 152 grains, 1 to 10. It is a sure thing on woodchucks. I have never had any trouble in cleaning my gun, and use only vaseline as a rust preventive.

I prefer a 30-40 Winchester to any other make or caliber.

E. G. Rogers, Adrian, Mich.

I have been using the Savage .303 rifle and find it a powerful and accurate gun, but believe I now have a load that, for shock and smashing power, is superior to even the .303. Here it is: 12 gauge smokeless shell; 3½ drams Dupont smokeless; one 12 gauge cardboard wad; one 11½ gauge ⅜-inch white felt; one 12 gauge ⅛-inch black edge. I press the wads home firmly on the powder, but do not ram them. On the last wad I seat a 12 gauge lead ball, cast one part of tin to 10 of lead, over which is a thin linen patch well coated with mutton tallow. Crimp down tightly on the bullet, using no top wad. My gun is a Parker, with true cylinder, 30-inch barrels. Those who try this load should be sure the ball will go through the muzzle of the gun. I use regular shot gun sights, and can hit anything as big as a bucket nearly every time at 150 yards. Loaded with shot my gun does nicely on woodcock and quails. P. F. D., Greenville, Del.

Why is the 30-40 better than the 30-30? Can I get reloading tools for the 30-40? Does it shoot a short range cartridge? Does the 30-40 give more recoil than the 30-30? Will the 30-40 burn all the powder charge? Eddover Willing,
Chesaning, Mich.

ANSWER.

The 30-40 is better than the 30-30 because it has 10 grains more powder, and thus the bullet has a higher velocity, lower trajectory and greater shocking and smashing force. You can get reloading tools for the 30-40 from either the Winchester Co. or the Ideal Mfg. Co. Yes, the Winchester Co. makes short range cartridges for this, as well as for its other rifles. The 30-40 cartridge gives slightly more recoil than the 30-30, but this is scarcely perceptible when shooting at game. With the standard length of barrel the 30-40 rifle will burn all the powder in the cartridge.—EDITOR.

I have used rifles the last 40 years; the muzzle loader up to 1885. I then got a Sharps 45 caliber. Both the above guns were as good as any man needs for hunting game in the mountains. In '98 I got a 30-40 single shot Winchester. It would not make a clean kill, as the lead would melt in the jacket. I sold it and got a Marlin 30-30. The breech action was a delusion, so I disposed of that gun. Later I bought a Savage octagon barrel, 303. It is perfection; I need look no farther for a smokeless rifle. Still, I would like it better if it were a single shot. I can use it as such, however. Savage rifles are not popular here; the magazine does not hold enough cartridges for a game hog. The man who will invent a gun that will hold 50 cartridges can make a fortune.

J. A. Steele, Walden, Colo.

I have a '97 model, take down Winchester repeating shot gun, which I would not exchange for any double gun. I have killed rabbits 80 yards away with it. With 3 drams of black powder and 1 ounce No. 3 shot I have killed ducks at the same distance. I have swore off on the double barrel after pulling both triggers at once and being kicked off an 8 foot fence on to my head. That can not happen with a repeater. I would say to G. H. Hurlbert that if he will get a '97 model Winchester, 12 gauge, 30 inch barrel, full choke, and put shot spreaders in his shells, he will find it an excellent gun for ducks. It will also do good work on quails and rabbits, and it is the best all around gun made. A 16 gauge is too small for wild fowl shooting.

E. C. DeWitt, Rocksprings, Ky.

I do not believe John Nordstrom, Gothenburg, Neb., or any other man ever owned a shot gun of any make or any gauge that would throw 62 pellets of No. 9 shot in a 3 x 3 inch target at 32 yards. Furthermore I dispute his story that his 16 gauge Ithaca gun threw in a 2 x 2-inch target at 25 yards, 92 shot out of one ounce of No. 6's. There are only about 280 pellets in an ounce; any man can figure for himself how hard some gun cranks try to dope the public. I have used many kinds of guns from the old muzzle loaders to the latest breech loaders. The best gun I have ever owned or used, considering shooting quality, wear, finish, and above all safety, was the Baker, either B or A grades.

L. W. W., Davis, W. Va.

I have been several years in Mexico, hunting and prospecting, and have had most of the guns of up-to-date manufacture. Am now shooting the smallest, finest, light weight rifle it has ever been my privilege to handle, a Stevens 22 long rifle Favorite No. 18. I need a small caliber gun

to shoot quails, doves, rabbits, etc., for the pot. The Stevens is also good for squirrels when I am in the foothills, and for turkeys at 100 yards in the mountains. I of course carry other guns on my prospecting tours, a .303 Savage for bear and deer, and a Syracuse shot gun. With those 3 guns I think I have the best game battery on earth.

Sam. P. Willard,
San Luis Potosi, Mexico.

A few years ago I had opportunity to examine a strange weapon, which might be described as a cross between a rifle and a shot gun. It had a long, single barrel, fitted with a percussion lock. Its great peculiarity lay in its rifling. Instead of turning, as in modern rifles, the grooves ran straight from breech to muzzle. It came originally from either Norway or Sweden, and the owner claimed it would shoot both round ball and shot with greater force and accuracy than any smooth bore. I should like to know if other RECREATION readers have seen similar guns, and what they think of the claims made for such arms. A. Kennedy, Missoula, Mont.

We all know a 22 calibre mushroom bullet is much more effective on small game than the solid ball, but the bullet is too light to penerate far. I have often taken a 1-16-inch drill and mushroomed 22 long rifle bullets, and tested them on sparrows and woodchucks. The results were far beyond expectation. Sparrows seemingly explode when struck, and woodchucks drop in their tracks with their inner mechanism badly disorganized. If someone would make a 22 long rifle with mushroom bullet it would be more powerful than the 32 R. F. J. D. Snyder, Lowell, O.

Can someone give me the classification of shot gun smokeless powders; that is, whether they are gun cotton, nitro-glycerine or chlorate of potassium compounds? Do they produce a higher or lower temperature in combustion than does black powder? Do they start the shot from the breech quickly or gradually? Would not the Whitworth system of rifling work much better in high power rifles than does the French system, the only one now in use? The Whitworth is a hexagonal bore. I should think it would be more durable.

Leroy Foltz, Neponset, Ill.

I note occasional items in the gun and ammunition department of RECREATION relative to rare guns. A short time ago I found and bought one of Sharp's Old Reliable rifles, 40-70 caliber, 28 inch round barrel, pistol grip, stock and hammer style, which weighs 20 pounds. These are scarce and I prize it highly, considering it in its appearance and serviceable state a first class acquisition to my sporting outfit; for though using the small bore I am still an unconverted 45-70 disciple.

E. E. Stokes, New York City.

I would say to S. U. Watson that I am using round bullets of about 87 grains weight with 8 grains of powder in my 38-55 rifle with good results. I prefer a grooved bullet on account of lubrication, yet the round bullet is accurate at short range. I have used many round bullets for shooting sparrows, and for prairie chickens when in the West. I should like to hear of the comparative merits of the 25-21 and the 25 cartridges.

F. B. Barber, Colebrook, O.

I wish to say a few words in praise of the Batavia Leader hammerless shot gun, manufactured by the Baker Arms Co. I have owned and used an Ithaca, a Remington, a Lefever, and a take down Winchester repeater, but none of them equaled my Batavia Leader. It has been fully tested, and all who have tried it say it is an extra good gun. It is far the best gun of moderate price I ever used.

Everett Brown, Pleasant Grove, Ind.

H. F., St. Johnsbury, Vt., asks about 32-20 and 25-20 rifles. I have a 32-20 single shot Winchester and it will do good shooting. I have put a 115 grain bullet the entire length of a large gray squirrel without tearing it, there being only a small hole where it entered and left the body. The full factory charge does the best shooting for me. I hear good reports also from the 25 caliber.

Frank Bennett, Lowell, Mass.

In May RECREATION D. Waters, of Baltimore, Md., speaking of his 10 gauge Remington gun, says: "I stumbled on a U. M. C. No. 287 shell, 4½ drams powder, 4⅛ ounces of No. 7 shot, and it is an ideal load for my gun."

Will he please tell me where I can get a shell to hold such a load, and what powder will handle almost 8 times its weight of shot? C. H. D., Marysville, Mont.

Is there a soft point bullet made for the 25-20 Winchester S. S. cartridge?

G. A. Savage, Meredith, Kas.

Will someone tell me of a good rifle for rabbit and squirrel shooting?

P. B. M., Quaker Hill, Conn.

Is it a good plan to coat the barrels of a shot gun with vaseline?

C. G. Syracuse, N. Y.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

KILL OFF THE EAGLES.

In the conduct of RECREATION, as far as I have observed, consistency has been a leading jewel. In your November issue however, a bad break is noticed. You have always advocated the protection of game by all. Yet in the number mentioned, because a man shot a chicken thief belonging to a great game destroying species, you say he deserves 10 years imprisonment. I hardly believe you meant just that. Your better judgement would dictate that a man who did not shoot at a chicken thief of any sort, caught in the act, deserves reproof. You will find it hard to name a useful characteristic of the bird you defend; he lacks a single redeeming feature. He is a most cruel, crafty and rapacious game exterminator. Only sentimentalists of the most senseless sort can see any utility in the eagle. I hope you will continue to work for game protection and boom the L. A. S., but don't try to ride steeds going in opposite directions. Eagles and game, from deer down, are diametrically opposed to each other. Payson, Manchester, N. H.

I referred above letter to Mr. W. T. Hornaday, and Mr. A. K. Fisher, Assistant Biologist of the United States Biological Survey, with a request for an expression of their views on the question(?) it raises. Here is Mr. Hornaday's reply:

"Exterminate the American eagle as a measure of sportsmen's economy? Perish the thought. Refuse legal protection to him when his existence is threatened? How can any full-blooded, right-minded American citizen be so churlish? Surely your correspondent has written hastily, and without taking time for sober second thought.

The American eagle needs no defence from me. Whenever the time comes that he is really in need of legal protection, 5,000,000 able-bodied men, saying nothing of the women and children, will be ready to fight for him at the drop of a hat. Whenever he needs to call out his reserves, he will be the best protected bird on earth. Whether

"He clasps the crag with hooked hands,
Close to the sun in lonely lands,"

or roosts in the dead cypresses along Indian river, or drags his finny prey from the swirling waters of the Yukon, he is enshrined in the hearts of 73,000,000 free people, and not one out of every 100,000 of them grudges him his daily food.

If his requisitions on the flocks of American farmers ever become a mentionable financial burden, depend on it, means will be found to pay Old Baldy's board bill. As to game, there is not a bit of danger that any species ever will be exterminated, or even noticably thinned out by eagles. That charge may justly be dismissed on the ground of "no cause for action." I venture to assert that there is not in this Union a State or Territory whose taxpayers would not rather pay for the actual losses to stock and poultry than to have the American Eagle exterminated within its borders.

Foreigners often sneer at Americans because of their worship of the mighty dollar. If the white-headed eagle ever should be exterminated, or driven out of this country because he eats an occasional chicken, lamb or rabbit, we will merit and receive the scorn of the world. Even the poverty-stricken ryots and bazaar men of famine-racked India ungrudgingly share their scanty stores of grain with the monkeys, made sacred to them by tradition. Shall we do less by our national bird? Hardly,

Of late years a few iconoclasts have gone out of their way to write down and villify the character of *Haliaetus leucocephalus*, and in that way, possibly, they have earned from publishers various sums of money amounting in the aggregate to as much as $8. They have called him a thief, a coward, a liar, and no gentleman; and more than one diatribe has wound itself up with a blistering denunciation of the use of such a bird as a national emblem. Some have even set up the wild turkey as a claimant for the position of feathered color-bearer for this nation!

Now, all this would be saddening, but for one thing;—it is amusing. Even if there is here and there a citizen who does not appreciate our national bird, the position of that bird is as impregnable as the Atlantic ocean. Even outside our own country the whole world admires him, or fears him, which amounts to the same thing.

Your correspondent says, "Only sentimentalists of the most senseless sort can see any utility in the eagle." It is true that Old Baldy can not hoe corn, nor drive a team; but he does not need to do any unskilled labor, for he has a better job. He has been officially appointed to perch with outstretched wings over the doors of all our ambassadors, foreign ministers and consuls, bear on his breast the armorial

shield of this great nation, and command the respect of the world. If that is not utility enough for one bird, then the American people are indeed hopeless sentimentalists.

Mr. Fisher replies as follows:

It is remarkable how prejudiced many sportsmen are in certain lines of thought, especially if we consider how many advantages they enjoy from opportunities of travel and association with fellow men which ought to make them unbiassed and broad minded. Without question, 10 years' imprisonment is a severe penalty to impose for thoughtlessly killing an eagle; nevertheless, the man who upsets the balance of nature by systematically killing the birds of prey is doing far more injury to the community at large than the one who robs a bank. The man who, through ignorance, shoots nighthawks or bullbats because they are supposed to kill his chickens is hardly less benighted than the one who kills the majority of hawks and owls for the same reason. Comparatively few of the rapacious birds molest poultry or game except in extreme cases, when their normal food is temporarily withheld on account of storm or other conditions. Even at such times the victims secured are usually sickly or crippled birds, which, owing to their disabilities are unable to escape, and their removal prevents the breeding stock from deteriorating. Usually it is those people who allow their poultry to shift for themselves or leave their herds unhoused that complain most of the inroads of predaceous birds and mammals, for the thrifty farmer who protects his poultry and sheep at night has no occasion for condemnation.

Many ranchmen realize the value of coyotes and birds of prey and will not allow them to be molested on their lands; consequently rabbits, ground squirrels, gophers, rats and mice are kept in check, and a full harvest is the result.

If the advocates of spring shooting would curb their unseasonable inclinations, and sportsmen at large would be satisfied with a reasonable bag there would be plenty of game for all, and it would not be necessary to lay the blame for the scarcity of game on the birds of prey.

BIRDS, BUGS AND BOYS.

Sidney, Ohio.

Editor RECREATION:

Prof. Bruner, in his "Plea for the Protection of Birds" in December RECREATION, like most bird lovers, is able to see but one side of the question. Those who have given the matter most careful investigation, are in great doubt as to birds being a help to agriculture and horticulture. Our Agricultural Department is now working on the theory that injurious insects can best be controlled and exterminated by insects that prey on them. It seems that birds are not fond of our most injurious insects, and it is feared they are too fond of those which are beneficial.

Prof. Bruner says, "Birds, like all other animals, feed on that food which is most readily obtained; hence, they destroy those insects which are most numerous, the injurious species." This is not true of either animals or birds. A rabbit will pass tons of grass or weeds to get to clover or peas, and will even choose certain varieties of young apple trees in preference to others in a nursery, after passing by the cherry, plum and peach trees. Chickens will chase grasshoppers many yards through a potato field where there are thousands of potato bugs, but never a potato bug will they eat. And it is so of every animal and bird. Prof. Bruner says 101 potato beetles have been found in the stomach of a single quail. I do not know who is authority for this statement, but I can not believe it.

A writer in a farmers' paper some years ago, condemned the killing of quails, and said he had seen a flock feeding on the potato bugs in his field, and that they would take a certain number of rows across the field, and repeat the operation until the field was cleaned of the bugs. He claimed too much, and simply lied. In "Birds of Village and Field," Florence A. Merriam tells a story of a quail getting into a locality in New York where quails were unknown, and when he whistled "Bob White" the dogs of the neighborhood ran thinking they were being called.

Those who write books should not believe all that is told them. If quails were not killed, and should breed at the rate she claims they do, there would be no room for anything else in a few years. She says they increase 20 to 90 fold a year. Now, if we count an increase of only 9 fold; or one brood of 18 to each pair a year, their progeny in 10 years would number 20,000,000,000. That number, packed like sardines, 100 to a cubic foot, would cover a farm of 10 acres 46 feet deep.

Our injurious insects are not relished by birds or poultry. As a rule they are unfit for food, even for a chicken, which will eat almost anything. Potato bugs, squash bugs, curculio, tomato and tobacco worms! Would any self-respecting bird eat anything so foul?

I have never succeeded in getting a chicken, young or old, to eat even a cabbage worm, though the birds were confined, and could get no other worms or bugs. Some years ago I kept 3 quails in a cage several months, and while they would eat grain and weed seeds, I never could get them even slightly interested in any kind of bug or worm

Prof. Bruner says: "The making of bird-egg collections is getting to be such a fad that almost every boy enters into it more or less zealously at some time or other. Some single collectors in a single season take 500 or more eggs." I do not for a moment wish to encourage boys in making collections of birds' eggs, but the above statement is an enormous exaggeration. I have been in close touch with boys for over 40 years, and never met but one boy who had started a collection of birds' eggs; and his was of the eggs of sea birds. His father was an eminent sportsman and statesman. E. P. Robinson.

ALARMING DECREASE OF BIRDS.

The Audubon Society of Missouri has been collecting data as to the protection of birds in that State for some months past. The methods adopted in this work are similar to those employed by Mr. W. T. Hornaday some years ago when he secured reports from all the States in the Union. The results obtained by the Missouri Audubon Society are much like those attending Mr. Hornaday's work. The conclusion arrived at from the investigation made by the Missouri bird lovers is to the effect that song and insectivorous birds have decreased in that State 62 per cent and game birds 80 per cent within the past 15 years. Deer, which were once plentiful throughout a great portion of Missouri, are practically extinct except in a few small and thinly settled districts. The Society asks, "Does any person doubt that unless sweeping reforms are inaugurated at once, a few years hence will witness the total annihilation of birds in this State?"

Here are some conclusions arrived at from a study of reports obtained from all parts of Missouri:

Bird life in general is being exterminated at an appalling rate.

Edible birds especially are persistently persecuted.

Song and insectivorous birds are killed for food on account of scarcity of game birds.

The extermination of all desirable birds is certain within a short period.

The very existence of the deer—the monarch of the woods, only a few years ago roaming in countless numbers through our forests—is doomed.

Bird and game laws as they now exist, and as now enforced, are entirely inadequate to prevent the annihilation of our birds and game.

A few suggestions:

Prohibit the killing, capture, possession or sale, dead or alive, of wild birds, except game birds and a few noxious species.

Prohibit the destruction of birds' nests or collection of eggs.

Prohibit the sale of all dead game at all seasons of the year, for a certain period.

There is no agency so well calculated to protect wild bird life as to prohibit its sale. The market hunter is robbed of his vocation, and the incentive to slaughter at all times of the year for commercial purposes is abolished. Experience has taught that this object is broad gauged and purely in the interest of the masses and in direct line with the unerring laws of nature—reproduction.

Restrict the number of game birds or game that may be taken or killed in one day or in a given time by a single individual.

Prohibit the shipment of game outside the State.

Prohibit the hunting of deer with dogs.

Repeal what is known as the county act.

No person should be denied the privilege of returning with the trophies of his chase, to enjoy same with his family at home.

Prohibit the using of a gun for hunting without a license.

The Audubon Societies throughout the country are doing a great deal of good and have aided in securing the passage of good game laws; but these people are not aggressive. They rarely prosecute a person for violating a game law. That remains for the League of American Sportsmen and is a large part of the work of this body. Therefore all friends of game protection, in Missouri as well as elsewhere, should belong to this League. All persons who realize that song and insectivorous birds and game birds are valuable to humanity, should belong to this League. All persons who can forsee the terrible destruction that would result to crops of all kinds, and to trees, if the song birds and game birds were all destroyed, should belong to this League. It has been effectually demonstrated by scientists that if all bird life were wiped off the face of the earth it would by reason of insect pests become uninhabitable within a few years. All persons who wish to see such a calamity averted should join the L. A. S. and aid in this great work.

Anyone desiring further information as to the causes and the results of the destruction of birds in Missouri should write for a copy of the report referred to.

Address August Reese, secy., 2516 N. 14th St., St. Louis, Mo.

METHOD OF PRESERVING BIRDS WITH PLUMAGE UNHURT.*

Take a bird just killed, open from the lower part of the breast bone to the vent with a sharp knife. Then extract all the contents, such as the intestines, liver, stomach, etc. This cavity then immediately fill with the following mixture: common salt, one pound; alum, powdered, 4 ounces; pepper, ground, 2 ounces; well mixed. Then bring the lips of the wound together by suture, so as to prevent the stuff from falling out. It would be well to put a small quantity of tow, on which the mixture has been sprinkled, along the suture previous to its being closed. The gullet, or passage, must then be filled from the bill to where the stomach lies, with the same mixture (but finer round, which must be got down by the help of a wire. Oepn the head nearthe root of the tongue, with the knife, and after having turned the knife around 2 or 3 times to destroy the structure of the brain, fill

*Written by a bird collector in 1795.

the cavity with the mixture. Then hang the bird up 2 days by the legs, in order that the salt may more effectually penetrate round the muscles and ligaments which connect the vertebræ of the neck. Then place the bird in a frame to dry in the same attitude we usually see it when alive. In this frame it must be held by 2 threads; one passing from the vent to the lower part of the back and the other through the eye. The ends of these threads are to brace up the bird to its natural attitude, and fasten to the beam of the frame above. Lastly the feet are to be fixed down with pins or small nails. In this situation it is to remain for a month or more, until the bird is perfectly dry) which may be readily known by its stiffness), when it may be taken out of the frame. The eyes must be replaced with glass beads fixed in with strong gum water.

THE MEANEST MAN ON EARTH.

The meanest man on earth lives here. Among his abundant possessions is a fine cherry tree. The red-headed woodpeckers love the cherries and the old man is too stingy to either divide with them or use good ammunition on them. He has, therefore, devised a plan by which he can kill them without expense. He secured a long pole and planted it firmly in the ground near the trunk of the tree, letting the top extend about 3 feet above the topmost branches. Then he took an ax and a chair, sat down by the pole and waited. All the woodpeckers that came to the tree would light first on the pole. Whenever one did so, the old cuss would spit on his hands and swat the pole with his ax. The poor bird would fall, its life knocked out by the shock. In that way this economical beast killed every redhead in the neighborhood. If there is a meaner man alive he ought to be lynched.

Ed. C. Hill, Horse Cave, Ky.

My attention was called by Dr. A. N. Sheffner to the query, "Do grouse drink?" I told the Doctor I would investigate, as I had frequently flushed grouse from my water tank. I find that grouse do drink. Their method of drinking is similar to that of the common barnyard fowl, namely, dipping down the head and filling the mouth, then raising the head and swallowing the water.

T. P. Aspinall, Hay Springs, Neb.

At Chamberlain, So. Dak., during a snowstorm the night of December 4th last, there fell a shower of birds. They were the little cow birds common on the prairie and looking much like English sparrows. The fall began about 10 p. m. The next morning there were thousands of dead birds all over the town and adjacent prairie. Fifty were counted on the roof of one building. Here and there a living bird was found, able to hop about but incapable of flying though apparently uninjured. How do you account for the fall of the birds and their death?

Reader, Volin, South Dakota.

ANSWER.

The birds were probably caught by the cold storm while in a famished condition, and were consequently unable to withstand the exposure.—Editor.

Kindly state through RECREATION how to distinguish blacktail deer from mule deer. A. Morris, Florence, Mont.

ANSWER.

There are no blacktail deer in Montana. The blacktail is found only on the Western slope of the Cascade mountains, and in the coast range in Oregon, Washington and British Columbia. It is almost identical with the whitetail deer except that its tail is black on the outside. The mule deer is the mountain deer of Montana, so called because its ears are large and shaped somewhat like those of a mule; its tail is slightly black on the outside, but nothing like that of the true blacktail. The mule deer is called a blacktail by 9-10 of the people who speak of it.—EDITOR.

Mr. Wixson is right in saying that eels migrate. Six years ago the boys hauled $3,000 worth of eels from the bottom of South bay. These were found in beds in 20, 30 and even 40 feet of water, and were caught with eel spears lashed to long poles. All winter, as long as the ice would hold them, 60 to 100 men worked at eeling. Spears and poles were at a premium in those days. Since then but few eels have been taken in the bay.

A. D. Milford, Ont.

During December, 1901, 7 Arctic owls were killed in this vicinity. They are all being mounted by our local taxidermist. They present an attractive appearance. Is not such a flight of these birds an unusual occurrence? Yet consider the wanton destruction.

F. S. W., Elk Rapids, Mich.

In January RECREATION, on page 20, the statement is made that the young woodcock flies when no larger than a bumble bee. If this be true, then, surely, "he runs with the shell on his head," if not all around him.

Robt. J. Sim, Jefferson, O

THE LEAGUE OF AMERICAN SPORTSMEN.

OFFICERS OF THE L. A. S.

President, G. O. Shields, 23 W. 24th St., New York.

1st Vice President, E. T. Seton, 80 West 40th St., New York.

2d Vice-President, W. T. Hornaday, 2969 Decatur Ave., Bedford Park, N. Y.

3d Vice-President, Dr. T. S. Palmer, Dept. of Agriculture, Washington, D. C.

4th Vice-President, A. A. Anderson, 6 East 38th St., New York.

5th Vice-President, Hon. W. A. Richards, General Land Office, Washington, D. C.

Secretary, A. F. Rice, 155 Pennington Ave., Passaic, N. J.

Treasurer, Austin Corbin, of the Corbin Banking Co., 192 Broadway, New York City.

FOURTH ANNUAL MEETING.

Pursuant to announcement, the 4th annual meeting of the League of American Sportsmen was held at Indianapolis, Ind., February 12th. The following officers and delegates were present:

Hon. Frank L. Littleton, Chief Warden Indiana Division; J. W. Connor, Kalispell, Mont., Delegate Montana Division; J. M. Gaunt, Great Falls, Mont., Delegate Montana Division; H. A. Morgan, Albert Lea, Minn., Vice Warden Minnesota Division; Harry E. Lee, Chicago, Ill., Delegate Illinois Division; A. Whitehead, Denver, Colo., Chief Warden Colorado Division; A. J. Applegate, Wichita, Kan., Secretary Kansas Division; F. G. Miller, Defiance, Ohio, Delegate Ohio Division; W. M. Grant, Oklahoma City, Okla., Chief Warden Oklahoma Division; William Dutcher, New York City, N. Y., Delegate New York Division; W. E. Gleason, Cincinnati, Ohio, Chief Warden Ohio Division; F. A. Pontius, Seattle, Wash., Chief Warden Washington Division; Chas. Paine, Wichita, Kan., Delegate Kansas Division; J. J. Hildebrant, Logansport, Ind.. Vice Warden Indiana Division; W. L. Agnew, St. Paul, Minn., Delegate Minnesota Division.

In addition to the officers and delegates above mentioned, there was a large attendance of local members living in Indianapolis and other towns in Indiana. Deep interest and marked enthusiasm were manifested by all present. It was inspiring and gratifying to hear the splendid reports, made by the representatives of the League, from the various States, as to the effective work being done all over the country in the interest of game, fish and song bird protection. Public sentiment is growing in our favor at a rate never before attained. No man can possibly realize the great work this League is doing, without attending one of these annual meetings. It is a fact to be deplored that all friends of game protection can not do so. When we realize that 10 years ago there was scarcely a State in the Union that had a law prohibiting the shipment of game out of its limits, and that today 38 States have such laws, we can see that the wheels of progress are moving. When we realize that only a few years ago no State Legislature could be induced even to consider a bill to prohibit the sale of game, and that to-day 16 States do prohibit the sale of certain kinds of game, and that a number of States prohibit the sale of all kinds of game, at all times, we can form some idea as to the wonderful change in public sentiment in favor of the preservation of wild birds and animals. The days of the market hunter and the game dealer are numbered. And the League did it.

The following report was submitted by Arthur F. Rice, Secretary and Acting Treasurer:

Receipts: Memberships, renewals, badges, from February 14, 1901, to January 10, 1902, $4,605.08.

Disbursements, during same period: State divisions, rewards, stationery, postage, salaries, stenographers, and sundry expenses, $4,078.38.

Balance on hand January 10th, $526.70.

Arthur F. Rice,
Secretary and Acting Treasurer.

The following resolutions were adopted:

WHEREAS, the League of American Sportsmen was incorporated in the State of New York in February, 1898, and

WHEREAS, the laws of the State of New York require that the incorporators of all companies or associations incorporated under such laws shall hold an annual meeting at the beginning of each year, and elect officers for the government of such company or association, and

WHEREAS, on January 13, 1902, the incorporators of the League of American Sportsmen held an annual meeting in accordance with the said laws as above stated, and re-elected all the general officers thereof, with the exception of treasurer, to serve during the year 1902, and

WHEREAS, Austin Corbin was elected treasurer of said League, to serve during said year 1902, now, therefore,

RESOLVED, that the League of American Sportsmen, in annual meeting assembled, on this 12th day of February, 1902, does hereby approve and ratify the action of said incorporators in re-electing the general

officers who served during 1901, and in electing Austin Corbin to serve as treasurer during said year 1902.

Almighty God, in his wisdom, has seen fit to take from us one of our truest and best friends and one of the most earnest workers in our great cause, and we deem it well to record our sorrow in so far as words can express it. Therefore,

RESOLVED, by the League of American Sportsmen, in annual meeting assembled, that in the death of Albert E. Pond, a charter member and Chief Warden of the New York Division, this League has lost one of its most devoted and faithful workers, and the birds and the wild animals have lost one of their best friends.

In paying to the memory of our departed brother this, our last tribute of respect, we tender to his bereaved family our sincere sympathy in their great loss. May he who noteth even the sparrow's fall send peace and consolation to the bereaved family of our lost comrade.

Offered by Mr. F. A. Pontius:

Alaska is the greatest game country remaining on this continent. It is the home of several species of our grandest American wild animals; yet they are being rapidly swept out of even that remote country. Miners, prospectors, market hunters and skin hunters, inspired by unprincipled fur dealers and taxidermists, have almost fixed the date when the last moose, the last caribou and the last mountain sheep in Alaska shall have followed their kinsmen into oblivion.

A bill is now pending in Congress which aims to stop this reckless slaughter; to stop the sale of game in Alaska, and the shipment of heads and skins from that Territory. Therefore,

RESOLVED, by the League of American Sportsmen, in annual meeting assembled, that we deeply deplore the reckless slaughter of our noble wild animals in Alaska and we earnestly beseech our Senators and Representatives in Congress to pass this bill at the earliest possible date.

This was offered by Mr. Harry E. Lee:

WHEREAS, the elk, which a few years ago was abundant throughout Colorado, Wyoming, Montana, Idaho, Oregon and Washington, has almost disappeared from these States, and

WHEREAS, the only large band remaining anywhere is that ranging in and about the Yellowstone National Park, and

WHEREAS, it has been effectually demonstrated that these great numbers of elk can not live in the Yellowstone Park, as now constituted, through the winter months, and

WHEREAS, these great bands of elk can not be afforded proper protection outside the legal limits of the Park, and

WHEREAS, all the best of the former elk range in the Jackson Hole country has been and is being fenced up by ranchmen, thus cutting off nearly all the former winter range of these elk, and

WHEREAS, these great bands of elk are threatened with starvation in the near future, therefore,

The League of American Sportsmen, in annual meeting assembled, representing all the States and Territories of the Union, requests and implores the Congress of the United States to immediately provide for the extension of the limits of the Yellowstone Park South and East, to include the adjacent timber reserves, and so much other country as may be necessary to provide an adequate winter range for the elk and the other wild animals in the Park.

The following was offered by Mr. Chas. Paine:

WHEREAS, game of all kinds is being rapidly exterminated in the United States, and

WHEREAS, State laws and State game wardens have been found incapable of preventing the complete extermination of many valuable species, and

WHEREAS, we believe the only possible means of saving the elk, the mountain sheep, the bear, the antelope and the mule deer from total annihilation within a few years is by the intervention of the general government, and

WHEREAS, certain of our good and wise chief magistrates have created several important timber reserves in the mountain ranges of the Western States, and

WHEREAS, a bill is now pending in Congress which aims to make absolute game preserves of certain of these timber reserves, therefore,

The League of American Sportsmen, in annual meeting assembled, does hereby petition and urge upon all members of Congress their favorable consideration of this measure; and we respectfully beseech these Senators and Congressmen to pass the same as soon as possible.

The present generation has seen the buffalo, the most noble and once the most numerous of all of our wild animals, wiped out of existence, with the exception of a few that were rescued from the passing throng by thoughtful men and that are now held and cared for in domestication. One of these small bands of buffaloes is owned by the heirs of Charles Allard, in the Flathead valley of Montana. Therefore:

The League of American Sportsmen, in annual meeting assembled, humbly petitions the Congress of the United States to take prompt and vigorous mea-

sures for the purchase and perpetual care of this band of buffaloes.

Mr. A. Whitehead offered the following:

All friends of game protection know that the buffalo in the Yellowstone National Park, which a few years ago numbered more than 400, have been killed off by poachers living near the borders of the Park, aided, abetted and inspired by unprincipled taxidermists, until now less than 30 of these noble animals remain in the Park; that this destruction has been wrought by these poachers because Congress has failed to appropriate a sufficient fund each year to employ an adequate number of scouts and game keepers to properly patrol the Park and keep the poachers out; therefore,

RESOLVED, by the League of American Sportsmen, in annual meeting assembled, that we deeply deplore this neglect of duty on the part of our Senators and Representatives in Congress, and we request and urge that body to appropriate hereafter at least $20,000 each year for the employment of scouts and game keepers in the Park, in order that the few remaining buffalo and the other game in the Park, may, if possible, be saved from the ravages of these skin hunters.

We also request and urge the Secretary of the Interior to adopt such measures as may be necessary to secure the detail of at least twice the number of troops heretofore kept in the Park to guard the roads and trails leading to and from same, in order to keep the poachers out of that great national game preserve.

Dr. T. S. Palmer offered this resolution:

WHEREAS, the prong horn antelope, one of the most interesting of America's wild animals, is threatened with speedy extermination, and

WHEREAS, several of the States having antelope left within their borders, have enacted laws prohibiting the killing of antelope at any time within long periods of years; therefore,

The League of American Sportsmen, in annual meeting assembled, representing all the States and Territories of the Union, hereby petitions and prays the Legislatures and the Governors of the States of Colorado, Idaho, Nebraska, Texas, Washington and Wyoming to enact, at the earliest possible moment, laws to prohibit the hunting or killing of antelope at any time before 1913.

And we especially urge all members of the League living in these States last named, to exert all possible personal influence to secure the enactment of such laws.

Mr. J. W. Connor, of Kalispell, Mont., offered this:

WHEREAS, The Cree Indians of British Columbia each year cross the International line into Montana and kill thousands of deer, elk and antelope, and

WHEREAS, the State officers of Montana have repeatedly urged the Indian department at Washington to take steps to prohibit these renegade Indians from coming across our borders and slaughtering our game as aforesaid, therefore,

RESOLVED, That the League of American Sportsmen urgently requests and prays that the Congress of the United States take such action as will meet the case, and as will forever prevent the yearly raids of these Indians on our game.

This resolution was offered by Mr. A. Whitehead of Colorado:

WHEREAS, it is the practice of certain Indians in Utah, Idaho, Wyoming, Colorado and other Western States and Territories, to leave their reservations and make periodical incursions into the adjacent country in pursuit of deer, elk and other game animals, and

WHEREAS, such hunting incursions result in great and unlawful destruction and waste of game in the places so visited, and

WHEREAS, it has been found difficult for the local authorities, and the Indian agents on the respective reservations, to prevent such hunting incursions, or to properly control the Indians when off their reservations on such hunting expeditions; therefore,

RESOLVED, by the League of American Sportsmen, in annual meeting assembled, that a rule should be adopted by the Indian Bureau, and rigidly enforced, absolutely prohibiting and preventing any and all Indians in any State or Territory West of the 87th meridian of longitude, from carrying firearms of any and every description, or having the same in possession when off the reservations to which such Indian or Indians belong; and the Honorable Commissioner of Indian Affairs is respectfully requested to see that a regulation embodying this plan be adopted and rigidly enforced.

WHEREAS, Virginia, Kentucky, Mississippi, Louisiana and Montana are the only States in the Union that have no laws prohibiting the export of game, Therefore:

The League of American Sportsmen, in annual meeting assembled, respectfully urges upon the legislatures and the Governors of such States, the necessity of enacting such laws at the earliest date possible; and League members in these States are hereby urged to use their influence to have such laws passed at the next session of their respective Legislatures.

The next resolution was offered by Mr. H. A. Morgan of Minnesota:

WHEREAS, the forests of this country

are being destroyed at an alarming rate by paper makers, and

WHEREAS, no good substitute for wood pulp has yet been found for the making of what are known as book and news papers, therefore,

RESOLVED, by the League of American Sportsmen, in annual meeting assembled, that we deem it the duty of the Congress of the United States to offer a reward of at least $200,000 to any person who may discover a good and practical method of making book and news paper from cornstalks, wheat straw, or any other annual vegetable product that can be successfully grown by farmers.

This was offered by Mr. F. S. Gleason:

WHEREAS, the Commercial Club of the City of Indianapolis has placed at the disposal of the League of American Sportsmen its assembly rooms for the purpose of holding the annual meeting of said League; therefore,

RESOLVED, by the League of American Sportsmen, that its thanks be and are hereby tendered the Commercial Club for the courtesy thus shown, and the Hon. Frank L. Littleton is hereby instructed to convey to the said Commercial Club a copy of this resolution.

Mr. H. A. Morgan offered the following by request of Mr. W. B. Mershon, of Saginaw, Mich., who was unable to attend the convention:

WHEREAS, the grayling, one of the gamiest, most interesting and beautiful fishes in the world, once abundant in many streams in Michigan, is now well nigh extinct; and

WHEREAS, enough of these fish still remain in the Manistee river to again stock that and other streams to repletion, if afforded proper protection, therefore,

RESOLVED, by the League of American Sportsmen, in annual meeting assembled, that we deem it expedient to stop all fishing in the Manistee river for a term of years, and that we humbly petition the Governor and the Legislature of the State of Michigan to enact a law at the next session of the said Legistature, prohibiting any and all fishing in said Manistee river prior to June 1st, 1907.

The following message was sent by wire to President Roosevelt at Groton, Mass.:

Indianapolis, Ind., Feb. 11th, 1902.
Hon. Theodore Roosevelt, President U. S.,
Groton, Mass.

The League of American Sportsmen, in annual meeting assembled, extends its hearty sympathy to you, an honored fellow member, in your present grief, and earnestly hopes your son may soon recover.

To which this answer came promptly:

Groton, Mass., Feb. 11, '02.
G. O. Shields, President
League of American Sportsmen,
Indianapolis, Ind.

The very kind message of the League of American Sportsmen is warmly appreciated by the President. Young Roosevelt's condition tonight is considerably more favorable than at this hour yesterday.

Geo. B. Cortelyou, Sec.

FOURTH ANNUAL REPORT OF THE PRESIDENT.

A vast amount of good work has been done by the League during the past year, as will be shown by the reports of the chief wardens made at the annual meeting, which will be printed in the official organ during the spring and summer.

Among the most important achievements of the year has been the securing of the passage of bills in New Mexico, Arizona, North and South Dakota, Montana, Nevada and Idaho, prohibiting the killing of antelope at any time for periods of 5 to 10 years. Unfortunately, the Governor of Idaho vetoed our bill, but the Governors of the other 7 States approved them. The antelope is one of the most distinctively American, and one of the most interesting and beautiful of all our wild animals; and the fact that we have stopped the killing of these interesting creatures in 7 States where a few of them still remain, would be glory enough for one year even if we had done nothing else. But this is only one of the great things we have accomplished. We have secured the passage of laws in a dozen different States prohibiting the sale of all kinds of game at all times of the year. We have secured the passage of laws in a number of States prohibiting the exporting of game of all kinds. This would be glory enough if we had done nothing else. But we have done a great deal more.

League officers and members have caused the arrest of 667 men for violations of the game and fish laws, and the conviction of 582. All those convicted have either paid fines or gone to jail to serve them out. In many cases guns, ammunition and camp outfits, found in possession of lawbreakers, have been confiscated and sold, and the proceeds applied to State funds for the enforcement of game and fish laws.

Within the past year the League has paid 16 rewards of $10 each for convictions secured by its members. The members who secured the other convictions have not claimed rewards. We have distributed at least 2 tons of printed matter prepared in the interest of game, fish and forestry protection. We have sent out 5,000 cloth posters, offering rewards of $10 each for

the conviction of game or fish law violators. In nearly all cases we have reports from the members to whom these posters were sent to the effect that same had been put up where they would do the most good. In some hundreds of instances, we have heard that lawbreakers had seen the posters staring them in the face, had been intimidated thereby and had announced their conclusion that it was time to quit taking chances by breaking laws and running up against League wardens. In many other instances, we have heard that malicious pot hunters and game hogs had torn down our posters, and that our members had promptly put up others in their places.

The League has been largely instrumental in breaking up the millinery traffic in the plumage of song and insectivorous birds. A number of States have passed laws prohibiting the selling, wearing or having in possession of such plumage for commercial or decorative purposes, and public sentiment against the custom of wearing bird skins has grown to such an extent that today it is a rare thing to see a woman wearing a bird on her hat, whereas, 2 years ago, nearly all women wore them. The Audubon societies have been valuable co-workers with the League in this field, but the League set the pace. It secured the passage of the Lacey bird law, and so is entitled to the greater credit for this reform.

League officers have made 2 important arrests of employees of the Armour Packing Co. for violations of the game laws in 2 different States. Convictions have been secured, and the company has been compelled to pay heavy fines. These are among the most important of the League's victories for the year. It is all right to arrest a poor farmer or other laboring man, and make him pay $25 for breaking a game law, but it is entirely another thing to round up a great corporation, worth millions of dollars, to make it pay a heavy fine, and to show its officers and the world that even millionaires can not override the game laws of the country with impunity, and that this League is no respecter of persons.

In general, the League membership has not grown so rapidly in the past year as it did in 1900. Still we have made a goodly showing. At the time of my last annual report, we had a total membership of 5,463. Today we have 7,784, a gain of 42%. A few States have shown remarkable growths in their memberships. Among these are: Arkansas, 900%; Indiana, 486%; Minnesota, 202%; Idaho, 118%; Oklahoma Territory, 640%; Georgia, 333%; North Dakota, 139%.

At the time of our last annual meeting, we had 19 State divisions. Today we have 43 in working order, a gain of 126%. We now have 28 life members, and should have had 2,000 by this time if the wealthy sportsmen of the country had done their duty. We hope in time to get them to realize what the League has done; what it is doing; what it is to do; and that it has earned the substantial recognition and cooperation of all men and women who are interested in the preservation of the wild life of this country.

A year ago we had 10 local chapters. Today we have 40; a gain of 300%. The good done by these local organizations is simply beyond computation. I hear of it nearly every day, and in various ways. For instance: An officer of one of these local chapters wrote me a few weeks ago that for many years an annual side hunt had been held there, about Thanksgiving time, but that since the League had organized a local body there, had gone to work, had disseminated our literature and proclaimed our purposes, the men who had formerly conducted these side hunts had changed their minds, and that no such hunt was held last year.

A year ago we had 122 local wardens at work in various States. Today we have 156, a gain of 28%.

Your President has drafted and sent to Washington, for introduction in Congress, 3 important bills. One of these aims to provide better protection for the wild animals and birds of Alaska. It aims to prohibit the sale of game in that Territory at all times; and to prohibit the shipment of heads and skins therefrom, for sale. It makes an open season of only 2 months in the year for hunting; it provides for a nonresident license of $25 for each hunter, and limits the number of animals which any one man may kill in a season to one moose, one bear, one caribou, 2 mountain sheep and 2 goats. It provides for 3 territorial game wardens each to have the privilege of appointing one deputy. The bill provides that each hunter may bring the heads and skins of this number of animals out of the Territory, under a permit to be issued by the territorial secretary. It provides heavy penalties for violations of this proposed law, either by hunters or by express companies, or steamship companies, or other common carriers.

Another of these bills provides for the conversion of all forest reserves in the Western States into game preserves, and that these tracts shall be governed and policed as the Yellowstone National Park is now.

The third measure provides for the extension of the Yellowstone Park South and East, to include the adjacent timber reserves and to provide adequate winter range for the elk and other big game.

Your President has also requested the

Hon. John F. Lacey to prepare and introduce a bill looking to the purchase of the Allard herd of buffalo and the care thereof, for all future time, by the general government.

Your President recently called on President Roosevelt, in Washington, and outlined to him the provisions of these several bills. Mr. Roosevelt expressed his hearty approval of all of them. We may, therefore, rest assured that if we can induce Congress to pass these measures, they will be promptly approved by the President.

One branch of our work grows larger as time progresses. That is as to the number of reports that come to the President of violations of game and fish laws in the various States. Every such case is taken up in detail and turned over to the chief warden of the League, if we have one in the State from which the report comes. If not, then it is reported to the State game warden, with the request that the offender be arrested and punished. Thousands of offenders have been convicted in this latter way, for which the League gets no credit and not even a record. In thousands of cases where it is found impossible to reach the offender by law, a personal letter is written him, informing him that we have evidence of his unlawful acts, cautioning him against a repetition of them, and asking for a pledge that he will obey the law in the future. Many of these men reply that they will quit their unlawful work. In most of these cases, we hear afterward, from the person who made the original complaint, that since receiving our warning the offender has led a different life, and that there is no further cause for complaint against him.

My greatest regret is that we find it so difficult to arouse the Southern people to the necessity for the enactment and enforcement of rigid laws for the protection of bird life during the winter. These people are slow to act n this work of reform. We have not yet been able to secure enough members to enable us to organize divisions in North or South Carolina, Alabama, Mississippi or Louisiana. These States afford winter homes to thousands of migratory song and insectivorous birds, as well as wild fowl, and thoughtless people there kill them all winter long without regard to law or decency. The laws of most of these States permit the killing of quails up to March, and a few of them afford any protection, at any time of the year, for doves or robins. We are doing a vast amount of work in an effort to stir up these good Southern people; to get them into the League; to induce them to enforce such laws as they have and to secure the enactment of needed amendments thereto; but it is an uphill job, and we need all the co-operation we can possibly get from the faithful few. Nearly all Northern sportsmen have friends and acquaintances in the South. Thousands of Northern men go South in the fall and winter, to shoot; and all such should make use of every opportunity to talk with our Southern brethren to urge on them the necessity of joining this League, and working with it. We should have 1,000 members in each of the Southern States. Our work is needed there even more than in the North, because of the great number of migratory birds that center in small districts in the South, and thus become an easy prey for the man with a gun.

No Northern man thinks of shooting a robin at any time. Yet in the South, white man and negro alike slaughter these innocent and beautiful birds at every opportunity, and without regard to any law that may exist. Let us do everything possible to convince these Southern people that the robin and the dove are not game birds and should not be killed at any time.

I frequently get a letter from some League member complaining that he is not kept informed as to what the League is doing. This is because we have not money enough to issue monthly or even bi-monthly reports to members, and to send them out by mail as we should like to do. I dislike to talk shop, but I trust I may be pardoned for saying that the official organ gives a great deal of information every month as to the work of the League. It takes 20 to 25 tons of paper to print each issue of this magazine and it is impossible for anyone outside of my office to realize the amount of good it is doing in the cause of game protection. It is read by at least 325,000 people each month, only a small fraction of whom are League members. and thus it has its effect on all these people. This is one of the reasons why the League is doing so much more good than its members realize. And it is one of the reasons why more special bulletins are not sent out.

ANOTHER MENACE TO GAME PROTECTION.

A bill has been introduced in the State Senate which aims to legalize the possession of game in cold storage all through the year. Every worker in the cause of game protection knows what this means. You know that if game dealers and cold storage men are allowed to possess game in close season they will sell it clandestinely, and no power on earth can prevent them.

The bill is numbered 367 and is entitled, "An Act to amend the Forest, Fish, and Game Law by adding a section to be known as Section 141."

This is one of the most infamous and iniquitous measures introduced in Albany since this League was organized. It is in-

spired and backed by the Game Dealers' Association, and by the cold storage houses in this city.

We must kill it. To do this, we must act promptly, vigorously and in unison. We must show the lawmaking power at Albany that we are greater than the combined interests of this city, who are working to exterminate the game of the whole country.

Let every League member, every sportsman, every nature lover in the State write his Assemblyman and Senator at once, stating in emphatic terms the injustice of this measure and demanding its defeat. Let there be no uncertain sound in your words. Give your lawmakers to understand that the friends of game protection will hold them responsible for their action on this bill, and that all decent sportsmen of the State require and expect the members of the Legislature, who are not controlled by the game dealers and the cold storage men of New York City, to kill this bill.

I trust there may be such a showing of righteous indignation against this measure as has not been experienced by the members of the New York Legislature in 10 years past.

LEAGUE NOTES.

I have read with the deepest regret the announcement of the death of Mr. Pond. He impressed me, when I met him at the last annual meeting of the League, as a man of exceptional character; evidently possessed of a cheerful optimism, backed up with resources of indomitable will and ability to overcome obstacles. I feel certain you have lost a most valuable ally and that game protection and the L. A. S. in New York will miss his services in many ways. It will be most difficult to find a worthy successor to so marvelous a man, but the example of his devotion will be a stimulus to all connected with the work and a monument of no mean magnitude long after his most untimely end. I doubt if any one man's work, other than your own, has contributed so largely to give the League of American Sportsmen a well merited prestige all over the country.

Ernest Russell, Worcester, Mass.

At the annual meeting of the League the sportsmen of Indianapolis gave the visiting members a banquet at the Hotel English, on the evening of Feb. 12th. The tables were surrounded by a jolly crowd of men, and the visitors were given a cordial welcome. After dinner some interesting speeches were made and good stories told, both by resident members and visitors. This gathering adjourned at a late hour, and the members went home with renewed energy and enthusiasm, bent on doing everything in their power to promote the interests of the League and to protect the game.

The Hon. G. M. Bowers, U. S. Fish Commissioner at Washington, has joined the League. In so doing he has shown his great interest in the cause for which this League is working, and has set a good example for other State and United States officers who are appointed to their respective positions for the purpose of doing everything possible to protect game and fish.

RECREATION comes among sportsmen not only as a medium of news, but as an educator as well. I recognize the fact that as the country becomes more thickly settled, we must take active measures to prevent the slaughter of game which a few years ago seemed so plentiful; and no one who is fully alive to the situation will feel like ignoring the advice given in that up-to-date magazine, RECREATION. A number of sportsmen in almost any community can easily club together and put out a few dozen quails along small streams, where farmers will co-operate with them in trying to preserve the birds from severe storms and the merciless pot hunters. I should be glad to see every farmer in the country a subscriber to RECREATION, as I know it would serve to remove some of their prejudices against those who are earnestly trying to make sport better in every way; not only by protecting game during the close season from shooters, but from their natural enemies, such as weasels, coyotes, magpies, etc.

A. L. Aikins, North Yakima, Wash.

Manager—Yes, there are a few vacancies in my company. Have you been on the stage long?

Lady—About 10 years.

"Ah! then you have had a good deal of experience?"

"N-no, I can't say I have."

"But you acted?"

"No, there was never anything for me to do."

"Ah, I see. You have been in the company of a great actress who wrote the plays herself."—New York Weekly.

She: So your brother is to be married? I suppose he is full of joyful anticipations?

He: Oh, not at all—he has been married before, you know.—Puck.

I am sorry to say I was a game hog before I began to read RECREATION. Since then I have changed, thanks to your magazine. S. Ball, El Paso, Tex.

FORESTRY.

EDITED BY DR. B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes thirty years to grow a tree and thirty minutes to cut it down and destroy it.

FORESTRY IN NEW YORK.

The attack which wealthy camp owners in the Adirondacks are making on the College of Forestry, dictated entirely by selfish interests, has at least an educational advantage in that it brings out the true nature of Forestry, as an art and a business, making it better known and appreciated, by the necessity of explaining the procedures in the College Forest Management. Since such clear understanding of the nature of forestry is desirable elsewhere, I reprint one of the campaign documents, issued by the Director, in full. He has put the essential points into the form of 12 Theses, as follows:

Forestry is the art of utilizing the forest and at the same time perpetuating it. It is wholly utilitarian; it has nothing, except incidentally, to do with the esthetic aspects of forest growth, which concern the landscape gardener. A wood crop is its object, just as a food crop is the object of agriculture. The only obligation which forestry imposes in the use or harvest of a forest growth is to systematically replace the harvested crop. In this obligation mainly, if not alone, does forestry differ from lumbering.

A limitation of the size of trees to be cut or to be left uncut has not necessarily any bearing on the replacement of the crop. Such a restriction to cut or leave certain sizes is either indicated by financial considerations, or else it is a device to prevent over cutting, wherever no systematic attention to the replacment of the crop can be or will be given. It does not pay to cut below a certain diameter.

In the College forests no hard wood trees below 14 inches or soft woods below 12 inches are cut, unless they are defective and not fit to grow into the new crop, or likely to damage the young crop by shade or by being thrown by winds.

The many methods of reproducing a new crop which are practiced, vary mainly in the rapidity with which the old crop is removed, namely,

From immediate absolute clearing, when the new crop must be either artificially planted or is secured by seeds from a neighboring old stand;

Through various degrees of gradual removal; when the old crop is entirely removed in 2 to 20 years, the crop being secured from trees on the area by seeds, and rapidity of removal of the old crop being gauged by the need for light of the young crop;

To the so-called "selection forest," in which only single trees, here and there, are removed from time to time and nature alone is left to reproduce the crop as best it may in the small openings made.

No method of reproducing is the only proper one, and in an experimental or demonstration forest which is to teach methods and demonstrate their results, all or a number of these methods should be exhibited.

The choice of method depends on the species present or to be reproduced, on climate and soil, on the objects to be attained by the management and on financial considerations.

In a mixed forest of nature the species composing the forest are not all equally useful; in the foresters' forest the most useful ones must be made to preponderate or occupy the ground, and the "weed" trees must be subdued.

There are 3 objects to be attained by forest growth, namely, to furnish wood supplies, to furnish protection of soil and water flow, to furnish pleasure and sport. We may accordingly recognize supply forests, protection forests and luxury forests.

The first object is, to the people at large, the most important; the second is of importance only in certain limited locations; the third concerns only or mainly certain classes; but the third, as well as the second—pleasure and protection—can be attained without losing sight of the first—wood supplies. All 3 objects are simultaneously attained in the managed forests of Europe.

Where the second and third objects, protection and pleasure, are paramount, the methods of harvesting and reproducing the crop are circumscribed by the necessity of keeping a constant cover; hence, gradual removal methods are advisable, although by no means always necessary. In a supply forest the choice of method is limited only by financial consideration including the assurance of silvicultural success that is of a satisfactory new crop.

The gradual removal methods entail large initial investments for means of transportation over large territory, in order to harvest enough material an-

nually or periodically, and their silvicultural success, that is the character of the new crop, is uncertain especially in the mixed forest. The immediate removal, followed by artificial replacement, entails money outlay for the latter from year to year, but saves expense in the harvest and reduces the investment for roads. Its silvicultural success can be forced; it is merely a question of pocket.

The selection forest system is the poorest, both financially and silviculturally, and to be applied only where absolute necessity for keeping a continuous cover exists or where better methods can not be practiced on account of market conditions.

Over 80% of the forests of Germany are managed under a clearing system (denudation) or rapid removal system; less than 20% are managed under slow removal systems or coppice, and mostly only on small limited areas. In Prussian state forests, nearly 7,000,000 acres, only 5%, 35,000 acres, are managed as selection forest; over 65% is managed in clearing and artificial replanting, less than 3% in coppice, the balance, 32%, in rapid removal system. On the cleared areas, 2,000 to 4,000 seedlings per acre more or less, are planted which, in 25 to 35 years, reduced to about 1,800 trees growing up like a wheat field, furnish in 60 years on soils not better than the Adirondacks 30 to 40,000 feet B. M.

A combination of natural regeneration with artificial assistance is the only rational method where, as in our culled forests, the most desirable species have been removed and the less desirable and the decrepit have been left on the ground. In such cases provision must be made to re-establish the desirable kinds by planting, after removal or reduction of the less desirable.

The College forest, according to the reading of the law, was primarily to be managed as a supply forest, for it is to "harvest and reproduce woodcrops and earn a revenue therefrom. Only secondarily or by implication is it to be managed as a protection forest, wherever this consideration is essential on steep slopes or hilltops. It is a mixed forest from which the desirable softwoods (pine and spruce) have been culled, and the less desirable hardwoods, decrepit and damaged runts, are left. The management has not been furnished with capital to make gradual removal methods practicable in most places, hence concentrated harvest, with artificial replacement of softwoods, assisted as far as possible by natural reproduction of both softwoods and hardwoods, leaving hilltops and steep slopes untouched to furnish soil protection and additional seeding, is in most places the only desirable method.

The choice of method was therefore partly forced by financial considerations, partly a result of deliberation on the best silvicultural result.

LUMBERING AND FISHERIES.

A visit to the lumber regions of the North at the present time can not fail to impress one with the evils of river driving. To stand on the bank and watch the logs glide easily by seems at first thought to be a cheap, easy and ideal method of transportation. Cheapness, however, is its only advantage Only those trees can be cut which will float. In this way the forest is robbed of its white pine, spruce and even cedar and balsam. After these have been exhausted it is finally necessary to build a railroad in order to transport the hardwoods which are left. If a railroad is built in the beginning both the hardwoods and the softwoods can be utilized together so that the cost of exploitation is per acre less than were the softwoods first cut and driven in the river and then, later, a railroad constructed for the transportation of the hardwoods.

River driving in the end, therefore, has probably no financial advantage in mixed forests. It is, the cheapest way of transporting softwoods; yet a large number of logs sink and are lost; others float beyond recovery into the brush and are overlooked; while others are splintered into bits by blasting in the process of jam breaking. River driving is fitful and uncertain. It is dependent on the quantity of water which nature supplies. It must be done in a hurry at one season of the year. If anything goes wrong and the drive gets tied up, the mill is deprived of its logs, contracts can not be filled and the whole business is more or less crippled in consequence.

In the case of railroad transportation the utilization is more nearly complete and work goes on throughout the whole year if need be. Men are evenly and permanently employed and the industry, while wood lasts at least, is more regular and certain. Some might argue that it is fortunate for the woods that river driving is still practiced. With river driving only the softwoods are used and the hardwoods are left to beautify the hills. In the case of railroad transportation everything would be cut clean and the mountain sides would be bared to the destructive action of fire, sun, wind and flood.

In regions in which forests are really needed for protective purposes little cutting should be permitted anyway. These areas should be under State control and should be exploited so they will perform the function for which they are

most fit, namely protection against the destructive forces of nature. In such regions no lumberman should be allowed to operate at all and all work should be directed by trained foresters.

In the case of land where forestry is or should be practiced as a business it is best in the majority of cases where the woods are mixed, to cut clean, pile and burn the slash, and then plant afresh. Regeneration may be effected by leaving seed trees or belts of seed trees so that the ground will be naturally seeded. This method is slow and cheap. When land is cut clean in the North a growth of poplar and birch soon follows. This is an advantage rather than a disadvantage, because the poplars and birches serve as nurse trees to the pines and spruces which gradually make their appearance among the poplars and birches. This process may be hastened by cutting strips and planting. This strip cutting and planting may be done for $5 an acre.

There is, in fact, no advantage in the end in merely cutting out the softwoods, as happens in all regions where river driving is practiced.

The main objection to river driving, however, is that it pollutes streams to such extent that all the good species of game fishes, especially trout, are killed. The grayling was practically exterminated in Michigan by lumbering operations. The logs ruin the spawning beds, the river is filled with bark and dead-head logs, the water is rendered unfit to drink and the river is monopolized for a long period of time by a few lumbermen. Guides and tourists and even the natives are deprived of the use of it for some time during the very part of the year when boating is pleasantest; that is, in the Spring before the mosquitoes and flies come.

There is no doubt that the scarcity of trout in the Racquette river is due to river driving. The pickerel is blamed, but the trout and pickerel lived together in the streams long before river driving began. Even the pickerel will lose their hold in case river driving continues. They have simply held their own because they could endure more adversity than the trout.

FOREST FIRES.

You have, no doubt, seen the annual message of President Roosevelt, and in it are some suggestions about forestry that I hope will become laws. One important fact seems to have escaped notice, namely, the origin of forest fires, which have been destroying the forests to such an extent that if they are not prevented at once we shall live in a desert within the next 100 years. Of course we shall not be here, but we ought not to be selfish. We should provide for the pleasure and needs of others that may come after. The cause of forest destruction to which I refer, is the railroads that run through virgin forests. I should like to learn of one place where the engines of the railroads have not been at fault. In my travels to the extreme West, Whatcom, Washington, I have seen the work of fire all along the line of the railroads, and no one can convince me that the hunters are responsible. When wood burning engines were in use, the smoke stack was made so that cinders could not be thrown out; but now the engines have no such appliances and I see no reason why they should not be made to use them. Many people saw the prairie at Huffman's Station, 7 miles East of Dayton, Ohio, on lands owned by H. Cooke, fired by the railroad at least 5 times during one day when we camped there last summer. We were told by the tenants that from the 1st week in July they had to watch continually to prevent being burned out. I hope you will take up this matter. There is no doubt of the result if you will. The results of your fearlessness in advocating the protection of game are wonderful.

G. C. Edgeter, Dayton, Ohio.

FOREST RESERVATIONS.

With President Roosevelt's recognition of the fact that "the forest and water problems are perhaps the most vital internal questions of the United States," there is hope that the federal forest reservations will soon be more than merely timberlands withdrawn from entry, occupation and use, but well administered, most useful properties.

Additional hope comes from the appointment of Prof. F. Roth, late of Cornell College of Forestry, to the position of Chief of the Forestry Division in the General Land Office, in charge of the management of the forest reservations. The consolidation of the nation's forestry interests in one bureau, which the President in his message strongly advocates, is, of course, bound to follow.

The bill introduced in Congress by Mr. Brownlow, providing for the purchase of a national forest reserve in the Southern Appalachian mountains, not to exceed 4,000,000 acres, is another move in the right direction, recognizing the national obligation of assuring desirable conditions in all parts of the Union.

The proposition to name this reservation the "McKinley National Park and Forest Reserve," in recognition of our lamented President's active interest in this proposition, can only accentuate the patriotic duty involved in it.

PURE AND IMPURE FOOD.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH. D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

TRANSPORTING FRESH FRUITS.

"It is important to note," says H. E. Williams, of the United States Weather Bureau, in a discussion of cold storage in relation to food products, "that in shipping fruits, etc., many of the precautions taken in packing to keep out the cold will also keep in the heat, and there is really more danger in some instances from heating by process of decomposition than from cold. All fresh fruit tends to generate heat by this process. A carload of fresh fruit approaching ripeness, closed up tight in an uniced refrigerator car, with a temperature above 50 degrees, will in 24 hours generate heat enough to injure it, and in 2 or 3 days to as thoroughly cook it as if it had been subjected to steam heat. Suitable refrigerator transportation must, therefore, provide for the heat generated within as well as the outside cold. The perfection of refrigeration for fruit is not necessarily a low, but a uniform, temperature. A temperature of 40 degrees to 50 degrees will keep fruit 20 or 30 days, if carefully handled. Strawberries have been transported from Florida to Chicago, transferred to cold storage rooms, and remained in perfect condition for 4 weeks after being picked.

"Fruit intended for immediate loading in cars should be gathered in the coolest hours of the day, and that which has been subjected to a high temperature before being shipped should be cooled immediately after being loaded. Ordinary refrigeration will not cool a load of hot fruit within 24 hours, and during that time it will deteriorate much in quality. It should be cooled in 4 or 5 hours in order to prevent fermentation. It is stated that the more intelligent of the large shippers of fruit in the South have about concluded that it is impracticable with any car now in use to load fruit, especially peaches and cantaloupes, direct from the orchard into the car with assurance of safety. In deference to this opinion one Southern railroad has announced its intention of establishing, at the largest shipping points along its lines, cooling rooms for the purpose of putting the fruit in satisfactory condition for transportation before being loaded.

"Shipments of tropical fruits in ordinary freight cars can not be made safely when the temperature is below 30 degrees, except in cases where the distance is so short as not to expose them for a longer period than 12 hours, and even then they must be carefully packed in straw or hay. The hardier Northern fruits and vegetables can be safely shipped in a temperature of about 25 degrees, but the same protective measures must be employed as in the case of tropical fruits when lower temperatures prevail. Long exposure to temperature of 20 degrees is considered dangerous to their safety. Foods preserved in cans or glass should not be shipped any distance when the temperature is below the freezing point.

"Oranges shipped from Florida to points as far North as Minnesota are started in ventilator cars, which are changed at Nashville to air-tight refrigerator cars, the ventilators of which are kept open, provided the temperature remains above 32 degrees, until arrival at St. Louis, from which point the ventilators are closed and the cars made air-tight. Lemons and oranges are packed in crates. Each layer of crates in the car is covered by and rests on straw, usually bulkheaded back from the door and car full. Oranges loaded in ventilated or common cars should be transferred to refrigerator cars when the temperature reaches 10 degrees above zero; in transit, with a falling temperature the ventilators should be closed when the thermometer reaches 20 degrees, and with a rising temperature the ventilators should be opened when it reaches 28 degrees. For lemons the minimum is 35 degrees for opening and closing the ventilators and for bananas 45 degrees for opening or closing. Some shippers say that ventilators on cars containing bananas, lemons, and other delicate fruits should be closed at a temperature of 40 degrees.

"In shipping carloads of bananas a man is usually sent in charge to open and close the ventilators. Bananas should be put in a paper bag and a heavy canvas bag, and then covered with salt hay, unless put in automatic heaters, when the fruit is packed only in salt hay. Bananas are particularly susceptible to injury by cold, and require great care. If exposed to temperatures as low as 45 they almost invariably chill, turn black, and fail to ripen. Cars containing them are sometimes, in extreme cold weather, protected by throwing a stream of water on them, which, freezing, forms a complete coating of ice. The method adopted by some firms of shipping this fruit in winter is to heat refrigerator cars to about 90 degrees by oil stoves, remove the stoves and load the fruit quickly, put the stoves back and heat up to 85 degrees or 90

degrees, then remove the stove again, close the car tight, and start it on its way. Bananas shipped in this manner are held to be safe for 48 to 60 hours, even though the temperature goes to zero.

"Quinces, apples, and pears are packed in barrels, each layer of barrels covered with and resting on straw."

LOSSES IN COOKING MEAT.

In connection with the nutrition investigations conducted by the Office of Experiment Stations of the Department of Agriculture, studies have been made by Prof. H. S. Grindley on the losses which are sustained when meat is cooked.

Experiments have shown that a piece of meat weighs less when fried or boiled than when raw. One object of the investigations referred to was to determine the character of this loss; whether the material consisted chiefly of juice in the meat, evaporated by the heat of cooking, or whether it consisted of actual nutritive materials. Should the latter supposition prove true, wholly or in part, it seems desirable to know whether it is possible or desirable to avoid such losses. Professor Grindley cooked samples of beef and mutton in several ways. In some cases the meat was pan-broiled, that is, quickly fried in a hot frying pan in which no fat was added. In other tests, the meat was cooked in hot water. Sometimes the water was cold at the start, rapidly raised to the boiling point, and the boiling continued. In other experiments the degree of heat used was varied in different ways. While the investigations on the losses in cooking meat are still inadequate, the conclusions given below seem warranted from the results of the experiments. Though the majority of the tests were made with lean beef, it is probable the results apply to other meats also.

The chief loss in weight during the cooking of beef is due to the driving off of water. When beef is "pan broiled" there appears to be no great loss of nutritive material. When beef is cooked in water, 3 to 20 per cent of the total solids are found in the broth. The material thus removed from the meat has been designated as a loss, but is not an actual loss if the broth is utilized for soup or in other ways. Beef which has been used for the preparation of beef tea or broth has lost comparatively little nutritive value, though much of the flavoring material has been removed. The quantity of fat found in the broth varies directly with the quantity present in the meat; that is, the fatter the meat, the larger the quantity in the broth. The quantity of water lost during cooking varies inversely as the fatness of the meat; that is, the fatter the meat, the less the shrinkage in cooking. In cooking in water the loss of constituents is inversely proportional to the size of the piece of meat. In other words, the smaller the piece, the greater the percentage of loss. The loss appears to depend on the length of time of cooking. When meat is in pieces weighing 1½ to 5 pounds, and is cooked in water at 80 to 85 deg. C. (175 to 185 deg. F.), there appears to be little difference in the quantity of material found in the broth, whether the meat is placed in cold water or hot water at the start.

The nature of the nitrogenous ingredients of the broth is not yet fully understood. This subject is now being studied in connection with further inquiries regarding the changes in meat in cooking.

THE COOKING OF VEGETABLES.

The following suggestions were recently compiled for cooking vegetables:

The coarser vegetables should be put into salted, fast boiling water, allowing one tablespoonful of salt to 2 quarts of water for everything but spinach. The cooking should be steady and the vegetables should be taken up the moment they are done, as leaving them in the water detracts from their flavor. When the water is hard, a little baking soda may be added to soften it; but not more than one-quarter teaspoonful to one gallon of water.

A few of the more delicate vegetables are exceptions to this rule. While steady cooking is necessary, it should not be fast enough to break them. Green peas, asparagus and cauliflower belong to this class. The length of time required for cooking vegetables follows: Potatoes, squash, spinach and parsnips, 30 minutes; new beets, carrots and onions, 30 to 45 minutes; new cabbage, string beans and salsify, 45 to 60 minutes; winter vegetables, as beets, carrots, turnips and onions, one to 2 hours; winter cabbage, one hour. Spinach should be cooked in as little water as possible and less salt than used with the other vegetables, say ½ as much to the given amount of water. Not more than one pint of water to a peck of spinach should be used.

Are you saving your photo prints? If not, begin at once. Send me 2 yearly subscriptions to RECREATION, at $1 each, and I will send you a Buechner album that will hold 100 4 x 5 prints. It will be of great value to you in showing the progress you make in your photography, from the first page to the last, and your prints will always recall interesting memories.

BOOK NOTICES.

NATURE STUDY AND NATURE STUDY BOOKS.

During the last few years a great many "nature books" have come from the American press. A few of these have had somewhat to do in creating the widespread interest in nature study, which is such a marked feature in the educational and popular tendencies of the present time. But most of these books are, rather, a result of this tendency, and in nowise contribute further inspiration themselves, because they have been written by people who do not know nature when they meet her out of doors. In too many cases the authors of nature study books are students of nature only as *dilettanti*, who have had no training in the exact methods of science. They know neither the method nor the meaning of nature, and have curious conceptions of what naturalists mean by "species," "environment," "adaptation," "survival of the fittest," "protective mimicry," or any of the fundamental facts and principles of evolution. Nature study, with many of these writers, is imagination, emotion, and poetry. It is of the "Oh, how charming!" sort, which applies human attributes and human nomenclature to all sorts of animals, and plants, too, for that matter, in a most reckless and extravagant manner. The style is that of the kindergarten, wherein entertainment is the end sought.

But not all the recent nature books are of this kind. Some of them have been written by men, and some by women, too, who have had careful scientific training, who are field naturalists of wide experience, and who have a direct and intimate acquaintance with the animals or plants about which they write. Such a book is Dugmore's "Bird Homes," and another such book is Howard's "Insect Book," recently published by Doubleday, Page & Co., New York. Dr. Howard, United States Entomologist, is a wideawake, thoroughgoing student of nature at first hand. He is a college man who got his early training in the method of science under Professor Comstock at Cornell. He tries to see things as they really are, and insists that you do the same when using his "Insect Book." The mental attitude is important in the study of any subject, and in nature study there is but one that is at all worth while. That is a determination to see things as they really are.

Imagination is not much needed in the study of nature. Casting away the imagination does not leave the study of nature or anything else cold and uninteresting. To see a fact as it really is is quite as fascinating and satisfactory as to imagine 40 things that are not so. Besides, it is worth a great deal more in character building and every other way. Dr. Howard's book is written on this principle. While entirely scientific it is no less entertaining. For that matter the best and most entertaining nature books are those which have been written by people who have had scientific training. The nature books not so written belong in the same category with newspaper science.

The "Insect Book" is a popular account of the bees, wasps, ants, grasshoppers, flies and other North American insects, exclusive of the butterflies, moths and beetles, with full life histories, tables and bibliographies. There is to-day almost nothing that covers authoritatively, yet popularly, this vast field, so that the present volume has special importance. With 300 text-cuts, 16 colored and 32 black and white pages made direct from the insects themselves, the subject is abundantly as well as beautifully illustrated.

The language is simple and easily understood by anyone who really cares to take the trouble to do a little thinking as he reads and a little looking whenever he has the opportunity. Full biographies of many insects are given to show how exceedingly interesting the life histories of our common insects are. A constant aim of the author is to get the student to realize that the life histories of the vast majority of insects have never been fully worked out, and that therein lies a rich field for anyone who wants to contribute to the sum total of human knowledge. Select almost any insect you please, watch it carefully for a season and you are sure to make new and important discoveries.

Another useful book is Arnold's "Sea-Beach at Ebb-Tide," published by The Century Co. It is a well made book of 490 pages, with many text figures and photographic illustrations of the multitude of animal and plant forms one may find on the beach at low tide. The book treats of the marine algæ, including the blue green, grass green, olive green, brown, and red seaweeds, and, among marine invertebrates, the sponges, polyps, worms, molluscoids, echinoderms, arthropods, mollusks, and chordates. The treatment is necessarily brief, so large is the field covered, and there is not enough natural history in the book. Nevertheless, it is a book which will prove useful in the study of the myriads of animal and plant forms of the sea beach.

EDITOR'S CORNER.

CONSULT THE RECORDS.

I have before me a letter written by the Marlin Arms Co., January 21, 1902, to L. O. Ashbury, Auburn, N. Y., in which they say, "You never find an article which is not advertised in RECREATION recommended in its reading columns."

To show the glaring falsehood of this statement it is only necessary to look on pages 50 and 51 of January RECREATION, where you will find an article of more than a page, recommending the Peters' cartridges in strong terms. These goods are not advertised in RECREATION, and probably never will be. The reader can also prove Marlin a liar by reading the second article on page 51, of January RECREATION, in which the Mauser rifle is strongly recommended, and this weapon is not advertised in RECREATION.

The reader can pass on over to page 53, and find an article endorsing the Greener gun, which is not advertised in RECREATION.

Then if he will take up a copy of February RECREATION and turn to page 129 he will find the Stevens' goods strongly commended. They are not advertised in RECREATION, and it is not likely they will ever be.

The reader can easily involve Paddy Marlin in another falsehood by turning to page 130 of February RECREATION, and reading there a strong endorsement of King's semi-smokeless powder, which is not advertised in RECREATION.

Then on page 133 is another recommendation of Peters' goods, and this puts another brand on Paddy Marlin. He knew he was lying when he wrote this letter to Mr. Ashbury, but he did not know that Mr. Ashbury would send the letter to me.

Every honest reader of RECREATION knows I never deny anyone the privilege of commending in my reading columns any article he is using, unless it happens that the maker thereof is fighting RECREATION and trying to destroy it, as Paddy Marlin is. It makes no difference to me whether a manufacturer of sportsmen's goods advertises in RECREATION or not. He has a perfect right to stay out if he chooses to do so, and I never criticise him for it; but when a man undertakes the dirty, disreputable methods of attacking me that Marlin has adopted, he will find he has plenty of trouble on his hands.

ANOTHER OLD GUN MAKER GONE.

Charles Parker, founder and president of the Parker Brothers Gun Company, Meriden, Conn., died Jan. 31st, at the age of 93. He was a poor boy, and worked on a farm from the time he was 12 years old until he was 18, at wages varying from $5 to $12 a month. Then he served an apprenticeship in a button factory. He then engaged in mercantile pursuits for several years, and finally established the gun factory which has made his name known all over the civilized world.

Mr Parker retired from active business years ago, but his energy and his ability as a financier were felt in various enterprises in which he was interested until the day of his death. Besides the gun business, Mr. Parker was president of the Charles Parker Company and the Meriden Curtain Fixture Company. While Mr. Parker's loss will be keenly felt by thousands of friends and acquaintanecs, his heirs and associates will conduct the various lines of business as heretofore.

A Pasadena correspondent who signs his communication "The Meddler" is hereby informed that his letter went promptly into the waste basket, as do hundreds of other anonymous letters that come to this office. A man who has not enough courage to sign his name to a personal letter, written to an editor or to any other man, should not waste his time and postage in writing. It is a rule in all editorial offices that letters which do not bear the real name and address of the writer, go into the waste basket. Signatures are always withheld from publication if desired.

R. H. Travis, of Montague township, Sussex County, N.J., shot a quail, February 9th, in violation of law. He was arrested by Game Warden Hendershot, taken before Justice Fuller, of Sandyston, and sentenced to pay a fine of $20 or serve 90 days in jail. At last account Travis was trying to borrow the money, but there seemed little show of his being able to get it. I trust he may have failed and that the sheriff may have the pleasure of feeding him for 3 months.

Rev. Joshua Cooke, known and loved by all reading sportsmen as Boone, has written a delightful story of the battle of Queenston Heights, which was fought Oct. 12th, 1812, near Niagara Falls. Boone's father was in the battle and the son recounts the story as it was told to him in the days of his youth. The little book sells at 25 cents, and can be had by addressing the author at Lewiston, New York.

PUBLISHER'S NOTES.

THE MALCOLM TELESCOPE SIGHT.

The Malcolm Telescope Manufacturing Company, of Syracuse, N. Y., believes it has realized the expectations of the shooting world in perfecting telescopic sights that meet the demands for clear and extended vision and absolutely stable mountings, self adjustable to the gun and eye by the purchaser himself. The Company is now ready to manufacture in large quantities its perfected telescopic sights, with long or short tubes, and place them on the market as a commercial article, thereby giving purchasers the opportunity of examining a telescopic sight outfit before buying. To accomplish this change in business methods has necessitated radical and perfected changes in mountings. The Company intends to place its goods in the hands of the dealers in cities of the United States as fast as possible; but if anyone about to buy a telescopic sight outfit finds the local dealer does not handle the Malcolm goods, the telescope and mountings, separate or adjusted to any make of rifle or pistol, can be obtained by writing the Malcolm Telescope Manufacturing Company direct, at Syracuse, N. Y.

SETON PORTFOLIO.

Chas. Scribner's Sons, 153 Fifth Ave., this city, have published a portfolio of 12 of E. T. Seton's best known and most striking pictures of wild animals. The size of the pictures is 10 x 14 on cardboard mounts 14 x 21 inches, and the set sells for $6. The pictures were prepared for reproduction under Mr. Seton's personal supervision and are in 4 printings by a new and effective process which gives each plate the freshness and attractiveness of the original drawing. The subjects are:

Lobo—the Wolf; Johnny Bear; The Sandhill Stag; The Buffalo; Courtaut—the Wolf; Family Life—the Bears; Lito—the Coyote; Lito and Brood; The Grizzly Bear; The Fox; The Kangaroo Rat; The Coons; Krag—the Kootenay Ram.

Considering the fine quality and size of the pictures the price is exceedingly low. All these pictures are suitable for framing and no doubt every sportsman who buys a set will frame at least some of them. Write for a circular and say you saw them mentioned in RECREATION.

A RAILROAD FOR CAMPERS.

Dr. J. N. Hall, of Denver, Colo., author of the excellent article printed on pages 279, 280, 281 and 282 of this issue of RECREATION, is one of the best known physicians in the West. He has handled this subject in a masterly way, and every man and woman who is suffering from overwork or from too close confinement within doors, should read Dr. Hall's article. No one can fail to realize the benefit of mountain camp life after doing so, and the doctor's arguments should induce thousands of weary people to go to the mountains this summer.

The C. R. I. & P. Ry. Company is paying special attention to the wants of people who are seeking good camping places in Colorado, and everyone interested in this question should write John Sebastian, G. P. A., Chicago, for information.

CONCERNING PROCTORS.

Proctor's, Newark, opened to the public Jan. 6, and the attendance has been phenomenally big ever since.

In Montreal a permanent stock company has been established. The best comedies and dramas will be presented, with vaudeville between the acts.

Proctor's, Albany, will continue to present the best vaudeville the market affords. At Proctor's 23d Street, New York, continuous vaudeville rules. The 5th Avenue, 58th Street and the 125th Street will have dramatic presentations by the Proctor Stock Companies. Vaudeville of the best grade will be presented between the acts.

Sunday concerts rule at all Proctor's New York City Theatres. Refined vaudeville is presented continuously after 2 P. M.

Geo. F. Webber, Detroit, Mich., has issued an interesting catalogue of his knit jackets, sweaters, jerseys, golf coats and hunting shirts, copy of which every sportsman should have. There are few men or boys or women or girls who engage in any kind of outdoor sports who would not find something illustrated in this catalogue that they would want. Mr. Webber started about 5 years ago making shooting jackets only, and began advertising them in RECREATION. They have been represented there nearly every month from that day to this and as a consequence his business has grown until he now makes a large line of goods that are in constant demand by lovers of the outdoor world. Write him for a catalogue, and say you saw it mentioned in RECREATION.

The Great Western Gun Works, Pittsburg, Pa., have made and put on the market a palm rest for rifle shooters, which is destined to prove popular among target shooters. It is a novelty in that it may be instantly attached to or detached from any rifle on the market. It clamps on the trigger guard or finger lever, as the case may be, and is fastened by a thumb

screw. Thus, if a shooter has several guns that he wishes to test or to use regularly from time to time, he can use the same palm rest on all of them, without any difficulty or loss of time.

If you have any use for an implement of this kind, write the Great Western Gun Works for an illustrated circular, and say you saw it mentioned in RECREATION.

THE SAVAGE ARMS CO., UTICA, N. Y., HAS ISSUED A CALENDAR FOR 1902. THE PICTURE DESIGN IS BY DAN SMITH A WELL-KNOWN ILLUSTRATOR, AND REPRESENTS A MOUNTAIN TRAGEDY. THE PICTURE HAS ALL THE DASH AND SPIRIT FOR WHICH MR. SMITH'S WORK IS FAMOUS, AND WOULD MAKE A WELCOME ADDITION TO THE COLLECTION OF EVERY BIG GAME HUNTER IN THE COUNTRY. SEND 6 CENTS FOR A COPY OF THE CALENDAR AND SAY YOU SAW IT MENTIONED IN RECREATION

The above was printed in March RECREATION with the word catalogue substituted for calendar. The Savage people make no charge for their catalogue of guns and now offer to send their 1902 calendar to RECREATION readers for 4 cents in stamps.

Savage Arms Co., Utica, N. Y.

DEAR SIRS: I should like your 1902 catalogue. I have been shooting a Savage the past 4 years. Have proven conclusively to several prospectors that it is the best on earth. Two years ago Sandy Jack was looking her over, I explaining her points. When we got through Sandy said, "Mac, I can take an armful of rocks and beat that shooting iron;" but I saw Jack about 2 weeks ago. He said, "Well, Mac, I got enough money together at last to get a Savage, and I'm ready to take an even break with anything that wears hair, hide or smells like meat."

R. McGregor, Hump, Idaho.

Chas. A. Hayden, Oxford, Ohio, has invented and put on the market a handy pocket water filter that is sure to become popular among sportsmen. Every man who has ever had to drink muddy or filthy water, or who has had to stand on his head in a spring or a deep brook in order to get a drink of good water will appreciate the filter with a long hose that will allow him to press the button and get a drink of good pure water even from a mud hole, and in a comfortable position.

Write Mr. Hayden for a circular of the filter, and say you saw it mentioned in RECREATION.

The Western Gas Engine Company, Mishawaka, Ind., builders of RECREATION launches and gasoline engines, has issued a beautiful catalogue. It shows a lot of RECREATION launches in actual use. They are enough to make any man's mouth water for a chance to get afloat in one of these beautiful vessels. If you have any desire to travel in this delightful way, write these people for a copy of their catalogue, and say you saw it mentioned in RECREATION.

Walsrode frequently makes a record for itself when used by expert shooters. It recently won the Grand Prize at Monte Carlo, which is valued at $4,000. Walsrode also won the Third Prize in the same event, and Grand Prize in the tournament of 1897. No better powder for all round work is made in the world. Schoverling, Daly & Gales, 302 Broadway, New York, are the American agents for Walsrode and sportsmen's powders. You should communicate with them.

I get a great many inquiries from Eastern sportsmen for the name and address of some one dealing in taxidermists' supplies, and all such are referred to Mr. Fred. Kaempfer, 88 State, St., Chicago, Ill., If there is a man in New York or any other Eastern city who deals in this class of goods he should advertise in RECREATION, and thus get at least a portion of this trade.

One-thousand-mile books of the Plant System of Railways, good from Washington to Charleston, Savannah, Montgomery, Thomasville, Jacksonville, Tampa, Albany, Brunswick and all intermediate points, rate $25 each, are on sale at office of J. J. Farnsworth, Eastern Passenger Agent, No. 290 Broadway, N. Y.

The Polk Miller Drug Co., Richmond, Va., has issued a new edition of Mr. Miller's book, entitled "Dogs, Their Ailments, How to Treat Them." The text has been revised and some new matter added. Every dog lover should have a copy of this book. All it costs is a postage stamp.

Columbia Barracks, Cuba.

Mr. Henry L. Jespersen, New York.

Dear Sir: You have treated me so well in the past that I give you the preference in all my orders for sporting goods, if price is satisfactory; also, because you advertise in RECREATION. Yours truly,

C. O. Moseley.

I have received the Syracuse gun you so kindly sent me as a premium for the best sportsman's magazine in the world, RECREATION. The gun, the magazine and your good work on game protection are to me the best that are to be had. We have a number of game hogs around here and nothing would do me more good than to test my new Syracuse on some of the old razor-backs. I will do all in my power to build up RECREATION and the good cause of fish and game protection.

Albert Schweinfest, Hamilton, O.

BEFORE RECEIVING THIS PACKAGE SEE THAT SEALS ARE UNBROKEN
EXPRESS PREPAID GLASS
HAYNER'S SEVEN YEAR OLD RYE
THE HAYNER DISTILLING CO DAYTON, OHIO, U.S.A.

FOUR FULL QUARTS FOR $3.20 EXPRESS PREPAID

QUALITY AND QUANTITY GUARANTEED

IF NOT SATISFIED YOUR MONEY REFUNDED

HAYNER'S
PURE WHISKEY.

Our distillery was established in 1866. We have enjoyed 34 years' continual growth until we now have one hundred and sixty-five thousand customers throughout the United States who are using Hayner's Whiskey—an evidence of true merit.

We give you absolutely pure whiskey at the lowest possible cost.

Our entire product is sold direct to consumers, thus avoiding middlemen's profits and adulteration. If you want pure whiskey our offer will interest you.

We will send four full quart bottles of Hayner's Seven-Year-Old Double Copper Distilled Rye Whiskey for $3.20, express prepaid. We ship in plain packages—no marks to indicate contents.

If after testing it is not found satisfactory return at our expense and we will return your $3.20.

Such whiskey as we offer for $3.20 cannot be purchased elsewhere for less than $5 00

REFERENCES: Third National Bank, Dayton; State National Bank, St. Louis, or any of the Express Companies.

THE HAYNER DISTILLING CO.,

226-232 W. Fifth St., Dayton, O.

305-307 S. Seventh St., St. Louis, Mo.

WRITE TO NEAREST ADDRESS.

N. B.—Orders from Ariz., Colo., Cal., Idaho, Mont., Nev., N. Mex., Oreg., Utah, Wash., Wyo., must call for 20 QUARTS by freight, prepaid.

I guarantee the above firm will do as it agrees.—EDITOR.

The Marvel Camera of the Age

Snappa

marks a mighty stride in the art of picture making. Learn more about it at the dealers, or write us for FREE booklet.

ROCHESTER OPTICAL AND CAMERA CO.,
119 South Street, Rochester, New York

AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

7th ANNUAL COMPETITION.

RECREATION has conducted 6 amateur photographic competitions, all of which have been eminently successful. The 7th will open April 1st, 1902, and close November 30th, 1902.

Following is a list of prizes to be awarded:

First prize: A Long Focus Korona Camera, 5 x 7, made by the Gundlach Optical Co., Rochester, N. Y., fitted with a Turner-Reich Anastigmat Lens, and listed at $85.

Second prize: A No. 3 Folding Pocket Kodak, made by the Eastman Kodak Co., Rochester, N. Y., fitted with a Bausch & Lomb Lens, Plastigmat Unicum Shutter, and listed at $61.50.

Third prize: An Al-Vista-Panoramic Camera, made by the Multiscope and Film Co., Burlington, Wis., and listed at $40.

Fourth prize: A Wizard C Camera, 4 x 5, made by the Manhattan Optical Co., Cresskill, N. J., with B. & L. Iris Diaphragm and Leather Carrying Case; listed at $33.

Fifth prize: A Waterproof Wall Tent, 12 x 16, made by D. T. Abercrombie & Co., New York, and listed at $32.

Sixth prize: A Gold Hunting Case Watch; listed at $50.

Seventh prize: A Tourist Hawkeye Camera, 4 x 5, and made by the Blair Camera Co., Rochester, N. Y., and listed at $15.

Eighth prize: A Bristol Steel Fishing Rod, made by the Horton Mfg. Co., Bristol, Conn., and listed at $6.

The 10 next best pictures will each be awarded on dozen 8 x 10 Carbutt Plates, made by the Carbutt Dry Plate Co., Wayne Junction, Philadelphia, Pa.

The 10 next best pictures will each be awarded one dozen 5 x 7 Carbutt Plates.

The 10 next best pictures will each be awarded one dozen 4 x 5 Carbutt Plates.

A special prize: A Goez Binocular Field Glass, listed at $74.25, will be given for the best picture of a live wild animal.

Subjects are limited to wild animals, birds, fishes, camp scenes, and to figures or groups of persons, or other animals, representing in a truthful manner shooting, fishing, amateur photography, bicycling, sailing or other form of outdoor or indoor sport or recreation. Awards to be made by 3 judges, none of whom shall be competitors.

Conditions: Contestants must submit 2 mounted prints, either silver, bromide, platinum or carbon, of each subject, which, as well as the negative, shall become the property of RECREATION. Negatives not to be sent unless called for.

In submitting pictures, please write simply your full name and address on the back of each, and number such prints as you may send, 1, 2, 3, etc. Then in a letter addressed Photographic Editor, RECREATION, say, for instance:

No. 1 is entitled —— ——.
Made with a —— —— camera.
—— —— lens.
On a —— —— plate.
Printed on —— —— paper.
Length of exposure, —— ——.

Then add any further information you may deem of interest to the judges, or to other amateur photographers. Same as to Nos. 2, 3, etc.

This is necessary in order to save postage. In all cases where more than the name and address of the sender and serial number of picture are written on the back of prints I am required to pay letter postage here. I have paid as high as $2.50 on a single package of a dozen pictures, in addition to that prepaid by the sender, on account of too much writing on the prints.

Any number of subjects may be submitted.

Pictures that may have been published elsewhere, or that may have been entered in any other competition, not available. No entry fee charged.

Don't let people who pose for you look at the camera. Occupy them in some other way. Many otherwise fine pictures have failed to win in the former competitions because the makers did not heed this warning.

PLATES VS. FILMS.

In an endeavor to point out the advantages and disadvantages attending the use of plates and films their relative prices must be considered. These are, in New York City, as follows:

4x5 Plates	4x5 roll films	Carbutt's 4x5 cut films
52	90	70
39 (Lovell's Extra Fast)		70

So far as price is concerned, it is evident that, were it not for other considerations, films would never have had an existence. However, the disparity in bulk and weight between plates and films is marked:

Weight—4x5 plates, 1 pound 3 ounces; 4x5 roll film, 4 ounces; 4x5 cut films, 1⅞ ounces.

The peculiar advantage of the daylight loading feature of the roll film package rules cut film, which has no such advantage, out of consideration, and leaves us to decide if the lightness and convenience of the roll film are or are not worth the additional increase of 50 to over 100 per cent. in cost of roll film over plates.

I think the foregoing are all the advantages and disadvantages that present themselves to the novitiate in photography. Other considerations than cost, bulk, weight and convenience are brought to light

by experience. Of these the first to claim attention is the comparative speed of plates and roll film.

Every well known extra rapid plate on the American market has an advantage over films in speed. The shutters of the various roll film cameras are so nicely adjusted to the speed of the films in use that the shortcoming of the film in regard to speed is not much in evidence, save when they are substituted for plates for high speed work in a camera designed to take both plates and films interchangeably. My own experience would not warrant the use of films in the stead of plates with a focal plane shutter working at its maximum rapidity, for under some circumstances even our fastest plates have demanded the use of the largest apertures of the Steinheil, Goerz, Zeiss convertible, and of the new Plastigmat lenses, and were then found wanting in speed sufficient to offset adverse conditions. But the matter of the comparative speed of plates and films is not of so much importance as their keeping qualities.

That plates are much superior to films in this respect is due to the support on which the emulsion is coated. In plates there is nothing extraneous to the emulsion itself, save natural causes, to set up deterioration. In the case of films the deterioration of the emulsion is directly traceable to the celluloid support, so that if the emulsion would keep well on a glass support, it may not do so when coated on celluloid.

Cloud effects are desirable, and halation is not; hence ordinary films give better renderings of clouds in ordinary landscape work and greater freedom from halation, than do ordinary plates. But roll films are all ordinary and one inquires in vain for roll films giving correct color values, and for roll films of various speeds for various kinds of work.

Here I am at a loss for a corresponding advantage in roll films to offset this great advantage attending the use of plates. The professional takes your portrait, employing fast plates. He copies your paintings, using color-sensitive plates, medium with a screen, slow without. He has a line drawing to copy and uses a contrast plate. He photographs the interior of your house; if many windows are to be included, he resorts to non-halation or backed plates, or uses ordinary plates to which he has applied a backing of his own. Nor does the professional landscape or seascape photographer use roll films, notwithstanding the amateur uses them outdoors, largely because of his objection to the weight of plates. Who has not admired Jackson's landscapes and Bolles' seascapes? No one asks: Do these men use plates or films? Nor do the foremost amateurs in any country use roll film cameras for any purpose other than the making of memoranda, that is, as a sort of pocket sketch book for the recording of bits here and there thought worthy of after, and more serious, consideration. I know of no instance in which highest awards have been made to pictures printed from film negatives in competitions open to the users of both plates and films.

I believe in the making of large negatives for direct printing rather than employing small plates or films and afterwards throwing up enlargements from small negatives. In this I agree with a vast majority of American workers, both amateur and professional, always excepting the button-presser.

There is little to be said in favor of films as against plates so far as development is concerned. Never having known anyone to prefer handling films, I will not argue the advantages of plates, but simply mention rigidity, tank development, fixing in alum-acid baths in grooved boxes, non-use of glycerine, and convenience in printing, as in favor of plates; development in rolls of small sizes, quick drying and printing from either side of film, as in favor of films.

Electric markings, incident and peculiar to roll films, never appear on developed plates. I have developed whole rolls of films and found the markings to run through the entire rolls.

Plates, being rigid, if in focus at all, are in the focal plane throughout their length. Under the same conditions, because of its curling propensity, a roll film might have its edges only in the focal plane, receding therefrom gradually toward its center, which might be decidedly out of focus in some instances.

I should mention the breakage of glass negatives and the room required to store glass negatives as against glass and in favor of films. Breakage is a small item, however; not more than one negative a year in my own experience.

The advantage of using glass plates for making enlarged negatives, and other advantages and disadvantages of plates and films will occur to the reader.—Photo Times.

FLASHLIGHT PHOTOGRAPHY.

The most important rule is the position of the light and its proper diffusion. The work of the tyro is recognized by its harsh shadows and unnatural, staring look on the faces of the sitters. As a rule, persons have a dread of flash powder, and the strained look of expectancy may be avoided by setting off a small preliminary flash, of course with the lens closed. Instantly the set faces will relax, and if the flash proper is then immediately ignited, before

the smoke of the first has settled, a pleasant picture will invariably result. The flashlight stare can be avoided by having the usual lights in the room burning full. The short time elapsing between uncovering the lens and igniting the flash will not impress any image on the plate.

In focusing a family group, or any such subject, in a parlor, care must be taken that none of the lights in the room shine directly into the lens, and that there is no mirror or other highly reflecting surface which will reflect back the flashlight.

It is not advisable, for safety or economy, to mix or experiment with new compounds. This has already been done and there is record of a few martyrs in the cause. There are several excellent and cheap flash compounds on the market; also flash sheets, which are convenient for small work.

Home portraiture, which is difficult at all times, is less so by flashlight. If the subject is sufficiently trained not to move between, it is advisable to ignite a small charge to one side and rather low down, to soften the shadows, and then a double charge slightly above the level of the head and a little to one side. If a piece of cheesecloth stretched on a frame is held between the flash and the sitter, the light will be sufficiently diffused without the double flash, but allowance must be made in the quantity of powder consumed for the loss of light passing through the screen.

In placing a subject or the figures in a group, do not have the faces turned directly toward the camera. This gives a flat result, as in daylight work. There are great possibilities in *genre* work by flashlight. The accessories of any room in the house are always convenient, rendering possible effects that could never be obtained by daylight. A long evening may well be spent in arranging, posing, and portraying willing members of the family in graceful attitudes among their natural surroundings. Such pictures can not fail to be interesting to friends, and if the work is skillfully done, and the picture made to tell a story, it will prove entertaining to those who are not acquainted with the subjects.

The quantity of powder consumed to properly illuminate any subject, is, like the timing of daylight exposures, best learned by experience. It is governed by the speed of the plate, the diaphragm, the distance and the color of the walls in the room. It is not necessary, as some advise, to ignite the flash behind the camera. If the lens is shielded by a hood, a cardboard tube, or a cone of paper, the flash may be made considerably in front of the camera, with a gain in illumination and economy of powder. There are some flash compounds, however, that scatter slowly burning particles in the air. These should be avoided, held so as to prevent the sparks falling in the line of the lens, or the shutter should be closed immediately after the flash.

In photographing an interior by flashlight, where there are no animate subjects, it is, of course, unnecessary to confine the operation to one flash. By arranging 2 or 3 small charges of powder around, so that the strongest light is from one side, it is possible to do work that could not be excelled by a well timed daylight exposure. In fact, it is possible to photograph interiors by flashlight that could not possibly be obtained otherwise.

For work in small rooms the flash sheet is to be recommended. It can readily be attached by a pin to a piece of protecting cardboard, and touched off with a taper. For general work the powder is best and cheapest. It is put up by various firms in little wooden boxes containing sufficient for an ordinary exposure. A fuse of celluloid or other substance attached to the box is convenient and safe; as a scorched hand will soon show that any flash compound can only be safely ignited at a distance. After some experience has been gained in the work, it will be cheaper and better to buy the flash powder by the ounce or pound. It can then be measured out according to the requirements of the subject.

There are numerous flash lamps advertised. Some are good, and one should be bought if much work is to be done. Such a lamp should be so constructed that it can be held at a safe distance or be conveniently placed on a stand. It should have a long, narrow pan, so the flame will be spread as far as possible, and a reflector back of the pan, which will also serve to shield the eyes of the operator. The appliance for igniting the powder should be never-failing in its action, and respond instantly to the touch. Flash pistols are good for several purposes, and they facilitate the taking of unexpectant subjects. They are like the snap shot hand camera compared to the tripod camera. As flash compounds give a white light of short duration, true color values are best obtained by an orthochromatic plate. Any plate that is of a high sensinometer number will, however, prove satisfactory. The negatives should be developed in a developer that is diluted with twice the usual quantity of water. This will help to bring out the fine details and counteract the tendency to harshness and extreme contrasts. There is no developer better for flashlight negatives than a weak pyro-soda solution, say 1½ grains of pyro to the ounce.—J. P. CHALMERS, in The Camera and Dark Room.

MORE LIGHT IN THE DARK ROOM.

Until recently I have found the one drawback to proper development in the

insufficient light given by even the best of ruby lanterns and ruby windows. Deep ruby is about the worst light by which to develop to that exact point that will give the best printing results. Moreover, the light undoubtedly harms the eyes. I have used enough ruby light in my dark room to read the print of newspapers by, but to no purpose. The finer, more delicate points can not be well enough examined to permit of the best work. If I notice in a landscape that the foreground values do not compare favorably with those of the mid distance, I can apply the proper treatment if it is apparent. Similarly, if the mid distance is not in harmony with the foreground and distance, that matter is readily changed during development if one can see what is going on. I do not like to be compelled to reduce here and there or intensify or doctor the negative with tissue on account of poor perspective, when, if the dark room light were adequate, I could have obtained a perfect negative without such extra work. Such a negative is worth having; one that, bar a few touches of spotting here and there, affords a faultless print. I read that certain dyes, light in color, were, nevertheless, perfectly non-actinic, and that a solution of them used in a tank before the light would afford sufficient light, not so deeply red as the ordinary ruby glass. Following up the idea, I secured some eosine and metanil yellow. Eosine is far the best red, as it is paler than aurine or erythrosine, yet is safer than either of the other darker reds. A weak solution of eosine, with a fair amount of metanil yellow, will make a light filter that fully answers the most exacting dark room requirements, save when color sensitive plates are used.

First, a tank for the front of the lamp must be had. I made one readily by separating 2 glasses with half-inch wood strips and making tight with a glue called seccotine, which any druggist can supply. To make sure of my work, I heated the edges of the tank and melted yellow beeswax into the joints. The tank has never leaked, and being filled with solution, with a little melted paraffine poured on top, it does not evaporate much or fade appreciably. The solution may be renewed about 6 times a year for safety, and the tank should always remain in the dark room, as otherwise the color will fade. The tank fits close to the front of the dark room lamp, or on the front of a light-tight box having a good lamp within and proper ventilation. No ruby glass is used, of course; the tank, or filter, takes its place. The solutions used are as follows:

For very brilliant light, safe ordinarily at 2 feet from the tray:

Eosine.....¼ grain
Metanil yellow.....6 grains
Water.....40 ounces

A less brilliant one:

Eosine.....¼ grain
Metanil yellow.....3 grains
Water.....24 ounces

If one feels the need of something not so pale, though a trial will prove the above are safe, as much as ½ grain of eosine, 6 grains of metanil and 24 ounces of water may be used; but the pleasure of working in a light where one can really see the true strength of the various parts of the negative is too great to spoil by returning to the deep reds. Those who will lay aside all distrust of the light solution will find comfort and great improvement in their work by taking it on trial. Paper stained with the same solutions would appear to work as well, but a friend who preferred to try it that way soon adopted the glass filter as far the best. Have the body of the solution a half-inch thick, and it will be about right and wholly safe. I hardly need add that the thicker the filter, the farther apart the glasses holding the solution, the less will be the resulting light.—B. W. Wordsley in Photo-American.

EXPOSURE WITH YELLOW SCREENS.

It is particularly during August and September that, for landscape work at any rate, the enormous value of the orthochromatic plate and color screen manifests itself. In spring and autumn the great beauty of the landscape lies not in the thickness and luxuriance of the foliage as in summer, but in the exquisite tints and delicacy of coloring which differentiate between the various trees and shrubs.

One of the questions oftenest asked is this: Is there any advantage in using a yellow screen with an ordinary plate? No: it is possible to use them, but hardly practicable.

An orthochromatic plate by itself will be found a great improvement on the ordinary plate for most landscapes in spring. When used with a suitable color screen the improvement is carried further.

The correction, however, must not be overdone. A screen that under ordinary circumstances gives the best result when copying oil paintings, especially those of a pronounced yellow tint, is not usually the best to employ on landscapes. The reason is obvious. In landscape, the truer the rendering the better. In copying an oil painting such as described, the photographer often requires not merely to reproduce the painting truthfully, but to counteract and remove a fictitious yellowness, which is as much a drawback to the painting as it would be to the photograph.

For this reason, then, a pale yellow screen rather than a deep one, is best for landscape work. There are plenty of differ

ent kinds on the market; among them the photographer can choose that which best suits his immediate purpose.

He will be well advised if before using it in the field he makes a series of careful tests to give him a clear idea of the extent to which the screen increases the exposure necessary. This is an important point, because great discrepancies are found between the increase as stated by the maker and that actually required by the screen.

Tests are best made in duplicate, in the middle of the day and just before sundown. Considerable difference will often be found between the 2.

A good general idea of the behavior of a color screen with any particular make of plate can be obtained by selecting some ordinary landscape subject and exposing one plate on it in a series of strips, pushing the shutter of the slide in between each exposure. Such a stop may be inserted as to make exposure thoroughly manageable, say f/32 or f/45. The exposures to the different parts of the plate, each of which should be double the preceding, may be so arranged as to bring the correctly exposed part somewhere in the middle of the series. Thus, if 2 seconds would be about right, then ½, 1, 2, 4, 8 and 16 seconds may be given. Immediately afterward a second plate should be exposed, but with the color screen interposed. The exposures in this instance may also double, the middle exposure being as nearly as possible as many times the correct exposure without the screen as its maker recommends.

Thus, in the case given, in which 2 seconds was about right without the screen, we should give, with a screen which the maker claims requires 4 times the exposure, 2, 4, 8, 16, 32 and 64 seconds. The 2 plates should be developed side by side in the same dish for the same time, fixed, washed and compared. They will show at a glance the exact effect of the use of the screen so far as prolonging the exposure is concerned.—Photography, London.

*PHOTOGRAPHING A CHIPMUNK.

In taking the photo entitled "Meddling with Danger," I had a few interesting experiences. I tried nearly every day for more than a week before I could get the chipmunk in the act of going into the trap. I set the trap and baited it, then set my camera up about 4 feet from the trap and covered it all with leaves and branches except the lens. I had a tube about 20 feet long. I lay down and covered myself partially with branches, leaving an opening to look through. After waiting an hour, without getting the chipmunk where I wanted him, I exposed a plate to learn the correct timing. The next day I came and after 1½ hours' wait, succeeded in getting the chipmunk in position. I went home much elated, to find on development that the picture was many times under exposed; being a different kind of plate, but supposed to be the same speed. I was then determined to get that chipmunk's picture and I kept going every day. Sometimes he would come out and run all over the wall without going near the trap. Then he would sit motionless in one position 15 or more minutes, but not where I wanted him. He became suspicious of the pile of branches, as I was so cramped I would sometimes have to move.

Once, after a long wait, he came out and was working my way, when along came a big stray cat. In went chippy with a chirp and didn't come out again that morning. I didn't say anything, but I wished I had my rifle for that cat. Once a few crows discovered my concealment, and in 5 minutes no less than 25 were flying around, darting down to see what the trouble was and making an awful racket.

One night my trap was stolen and I found it beside the road, broken, about half a mile distant. I repaired it and still had hopes. The next night the trap was gone for good and I had to make a new one, which I carried back and forth with me. While lying in wait I made the acquaintance of a red squirrel and a blue jay, which I saw every day. Finally, one day after waiting 2½ hours, and being nearly frozen, I managed to squeeze the bulb and get the picture of which you have copies. I find much more satisfaction in this picture than in one which is easy to get and where there are no obstacles to overcome.

Harry G. Higbee, Hyde Park, Mass.

* See page 258.

SUGGESTIONS.

Red spots on platino paper may be removed in 2 ways. If they are not bad, incline a tray slightly, lay the print with the streak or spot toward the incline. Place a lump of hypo on it and, with your finger, a few drops of water on that. Keep it moving occasionally and the spot will gradually be eaten out. The other, and perhaps best way, is to make a weak solution of cyanide of potassium, and remove by either applying locally or immersing. If you have a print too dark, cyanide makes an excellent reducer. If the solution is strong it will work on a trifle after it is removed to the water. This should not affect the permanence of the print, as it only eats off the metallic platinum or gold. This process is intended to be used after the print is fixed.

Cyanide of potassium is an excellent plate

reducer. It does not leave that smooth surface to the film which is so hard to stipple. Care should be used with it, as it is a violent alkali and deadly poison. Even its fumes are unhealthful.

Too much care can not be exercised in cleaning lenses, for even with the greatest precaution scratches are made and they undoubtedly impair the speed. An astonishing number of them appear in an enlarging camera where electric light is used. There are millions that are not apparent under other conditions. Silk handkerchiefs may be all right for cleaning a lens, but it is almost impossible to leave a scratch when a piece of absorbent cotton is used, and it cleans more thoroughly also. Any lint that is left can readily be removed with a soft camel's hair brush.

The simplest way to keep developing solutions at a normal temperature is to heat water, put it in a tray the size of the one you use to develop with, and when ready for work keep the last mentioned sitting in it. By heating both trays before use sufficient heat can be kept in the developer to bring up any negative.

To avoid too great contrast use the metol pyro formula that comes with the plate. Develop with the metol until the image is well out, then add the pyro to give the strength. They will bring out all there is in the film.

Professional and Amateur Photographer.

SNAP SHOTS.

One cloudy day while printing, I decided to make a transparency from an unused end of roll film. It was not my intention to make anything especially good. Hastily selecting a glass plate, I placed it in a frame and put in the film as one would place the paper. This I did in the dark room. I then placed the frame in weak daylight and left it 8 or 10 seconds. It was quite a surprise to find on development that the film was an exact copy of the original negative, excepting not quite so sharply cut. Can you tell why it was a negative instead of a positive, as one would naturally expect? W., Ulrichsville, Ohio.

ANSWER.

An exposure of 1 second to a lighted match held 2 feet from the holder would have afforded you a positive. Where great overexposure is given, as you gave, a negative from a negative or a positive from a positive is the invariable result and the well known fact is commonly resorted to by all who have plates to duplicate.—EDITOR.

As the snows of winter come anew, my troubles begin. I can not get a good view of the mountains' snow covered tops. The sky will not be white. The mountains are not distinct. The toning does not seem to do its work or is the fault with me? The print I enclose, I took about 10.30 a. m. with a fair, bright sun shining. The stop was down to 64 and I gave 15 seconds' exposure. I made 3 exposures that day under similar conditions, the results being nearly the same. Later I made 3 exposures with an Al Vista front attached on Eastman films. The weather conditions were similar and results were about the same, only I used a much larger stop. The tops of the ranges and the sky are nearly the same color.

C. N. Truman, Ouray, Colo.

ANSWER.

You have overtimed the plate and have not developed enough. When you think your plates are developed, leave them in 5 minutes longer. It will be good for them.—EDITOR.

Will you please publish a formula and directions for coating silk or other cloth with blue print emulsion? Mrs. W. S. Wands, Oakland, Cal.

ANSWER.

The simplest way to sensitize the cloth is to immerse it till wet through in the blue print solution, wring out and dry while stretched. Sensitizing and drying must be done in dim light or by gaslight at night. You can buy 12 tubes of perfect sensitizer for blue print work for 50 cents from E. W. Newcomb, Bible House, New York City, or if you prefer to make your own, use 64 grains of ammonia citrate of iron in an ounce of water, 48 grains of red prussiate of potash in another ounce of water and when fully dissolved, mix the 2. Martin's silk solutions are best for silk but they afford brown and black tones only.

I note the prize winning photo, "Resting," in February, 1902, RECREATION. Do you intentionally print photos of game killed or crippled out of season, or does the New York law permit one to kill deer during the summer? If you will examine the photo carefully and read the article regarding it in the photo, department I think you will agree with me that this buck was killed during the latter part of July; certainly not later than August. His horns are in the velvet, and he has the short summer coat. Note the wrinkles in the neck.

A. E. Hammond, Darby, Mont.

Will Mrs. Kirschner please explain?—EDITOR.

Photographers are again reminded that they should always write their names and addresses on the backs of pictures which they send to this office. Valuable photos occasionally come in here without any clue to the identity of the maker, and a great deal of trouble might be saved if the amateurs would, in all cases, take the precaution to sign their pictures.

I RAN BACKWARD A FEW FEET, TRIPPED AND FELL, WITH THE LYNX ON TOP.

RECREATION

Volume XVI. MAY, 1902. Number 5.

G. O. SHIELDS (COQUINA), Editor and Manager

A MIX-UP WITH A LYNX.

T. A. RYER.

More years ago than I like to reckon up, I was a boy and living in Nova Scotia. My father was called at that time the best moose hunter in the Province; so my brother and I were born woodsmen, and we tagged along at our best pace in the old man's footsteps. Game was abundant, though that is a meaningless phrase. No one now can realize what a Nova Scotian hunter of 50 years ago meant by an abundance of game.

Of big game there were moose, caribou, bear and deer. Our fur-bearing animals were beaver, otter, mink, marten, fox and wildcat. Rabbits and grouse swarmed on the land and ducks and geese on the water.

My brother was a great trapper, and especially skilled in catching wildcats. Though I was too young to be of much help, I always went with him on his rounds. We had a Newfoundland dog that was sudden death to any cat trapped by the fore feet. A cat caught by a hind foot could generally stand off the dog until we took a hand in the game.

As I have said, my brother was always lucky. He killed the largest moose ever seen in the Province. It weighed over 1,400 pounds, and its horns spread 6 feet from point to point. We would often gather in 6 or 7 cats in a day, and all within 3 miles of our house. You may believe I had more fun in those days than I have ever had since. Our guns were only smooth bore muzzle loaders, but we got lots of game with them.

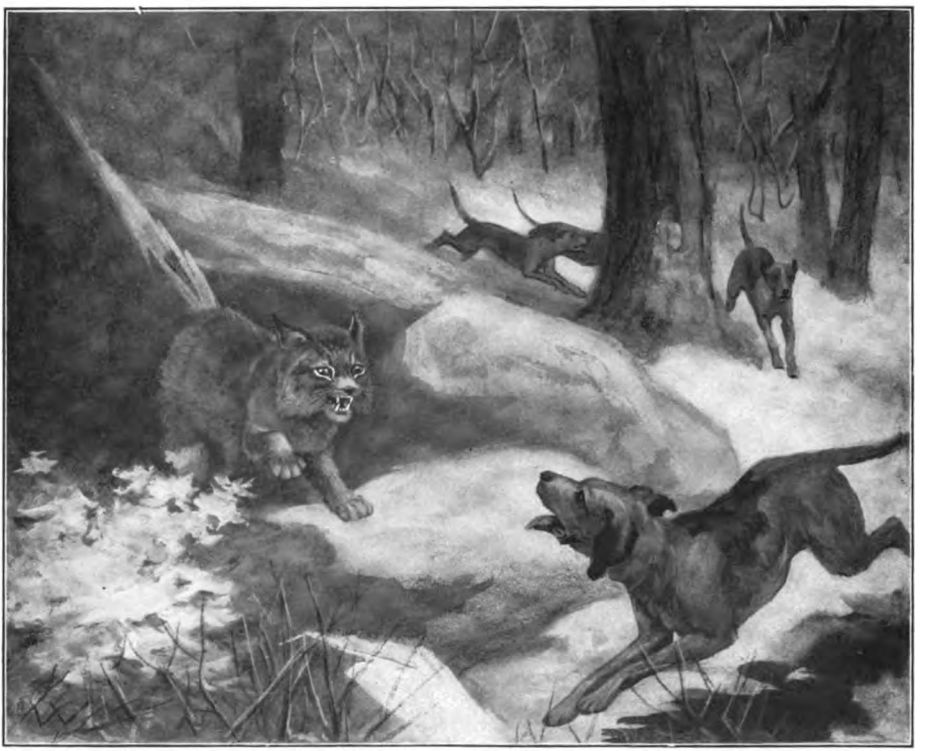
Our dog did a lot of hunting on his own hook. When he found a fresh track he would follow and generally tree a cat. Then he would stand under the tree and bark until my brother or I came. I well remember a mix-up that dog and I had with a lynx, the first I ever saw; and it came near being the last.

Early one morning my father heard the dog barking on a ridge, a half mile or so from the house. I was called out of bed and sent to see what the dog had. I took my old single barreled smooth bore and trudged along. About 30 feet up in a tree over the dog was what I thought was a large wildcat. I fired; down it came, and the dog was on it in an instant. Gosh! you should have seen the hair fly! The poor dog had no more chance with that lynx than I would have had with Samson. The great cat had him on his back in a flash, and was raking his belly with its hind claws.

I saw the dog would be killed in a minute more. I had no time to load the gun, but picked up the first thing I saw, which happened to be a dead limb that lay handily, and sailed in. The limb was rotten, and flew into bits at the first blow. All I accomplished was to turn the lynx's attention to myself. It let go the dog and, with a spitting yowl, sprang at me. I ran backward a few feet, tripped, and fell, with the lynx on top, raking me fore and aft.

But the old dog was good stuff. He worried the brute so savagely that it had to turn and fight him off. I

got to my feet, grabbed my gun, clubbed the lynx and ended the row with one good blow. It broke the stock, bent the barrel and wrecked the gun generally; but it killed the lynx, and I was satisfied. Father bought me a double barrel soon after; but the old dog never treed another cat.



AN INCIDENT OF LYNX HUNTING IN THE ROCKIES.

Her Friend: But you have encouraged half a dozen men to propose and then refused them.

The Coquette: Well, you know, I've taught them to beware of over-confidence. —Puck.

A LYNX HUNT IN FLORIDA.

W. A. REEVE.

It was all arranged the night before. George had asked if we would like a lynx hunt. George is one of the most faithful and honest guides in Florida. He lives on the shore of Lake Apopka. Numerous cats also live there. None of us had ever killed a lynx, and, of course, we wanted to add one to our list. There is war between George and these animals.

At 5:30 a. m. we sat down to such a breakfast as Mrs. Stokes alone can prepare. We flagged the train in front of the house, receiving the usually hearty welcome from Conductor Abberger. To travel on his train is to get your hunting proclivities aroused to the utmost. He is a keen hunter, and the stories of his personal experiences will take you to your destination all too soon. George met us at the little station in front of his home. With him were his nephew Henry and 2 dogs, Red and Gyp. A walk of a mile took us to our stands. Mine was by a picket fence at the edge of a piece of woods and a thick swamp. The captain, a retired naval officer, was as keen a sportsman as ever pulled a trigger. He could not only kill game, but knew how to cook it properly. He was placed several rods farther in the woods. Grandpa, a kindly old gentleman from St. Louis, was stationed on a knoll in the rear and farther to the left. He is called Foxy Grandpa from his accurate resemblance to that famous gentleman. George, Henry and the dogs proceeded to a dense hummock about a mile in front of us and began beating the thickets.

For half an hour we heard no sound from the dogs, but Henry began and maintained at intervals of about one minute a long-drawn wail, for the purpose of urging on the dogs and starting the game. His booow! hooow! hooow! in a piercing and high pitched voice could be heard a mile away. Then the deep, long-drawn voice of Red broke the monotony and hastened the blood through our veins. The sharper, quicker yelps of Gyp joined the chorus, and the chase was on. Nearer and nearer, louder and louder, came the baying; then a lull. An anxious wait, and then away off to the left the dogs took it up. The cat had scented danger, and, making a circle, had gone by, followed by Red. Gyp soon began, having indirectly started another. George was heard directly in my front, urging him on; but he came no nearer. The lynx was evidently circling. I scarcely dared breathe, so quiet did I try to keep. The tension was soon relaxed, for the cunning animal had doubled on George and started for the big swamp in front and safety. Henry's voice had long since become inaudible, having followed Red out of hearing.

With George and Gyp lost to us in the South and Henry and Red in the Northeast, I began to lose interest. It was one of those perfect, warm days so common in Florida, and so beneficial to the grip-racked patient from the North. A gradual drowsiness was coming over me when I was startled by the crack of the Captain's gun, followed almost immediately by 2 shots from Grandpa. At a shout from the Captain I hastened to him. He stood over a magnificent specimen of lynx. The Captain said he too was dozing when he felt impelled to look around. Behind him and across an open glade was sneaking this cat. Instantly the Captain fired; instantly there was in motion a spinning wheel of leaves, twigs and lynx. Before the Captain made up his mind to shoot again the wheel suddenly straightened out, as though a string had broken, and was still.

"What was Grandpa shooting at?" I asked.

"Give it up; let's go to see," he said.

Picking up Mr. Lynx, we started. Grandpa was standing by a young buck, with a bloody knife in his hand, having just cut the buck's throat. The baying of Red was heard coming toward us. In his pursuit of the cat either he or Henry had disturbed the deer, which was trying to sneak away, not seeing Grandpa, who sat with his back to a tree. The deer was making for the big swamp. Grandpa said he had been asleep, when, awakening suddenly, he saw the buck passing about 20 yards away. Grandpa is the soul of truth, but he was surely mistaken when he said he had been asleep, for no deer would have come within a mile of him when asleep. I have slept, or tried to, in the same tent with Grandpa, and I know. Ask the Captain. Grandpa has not done any hunting for 30 years and says he can not shoot as he used to. I would rather be able to shoot as poorly as Grandpa than as well as some others.

Harry met us at noon with the lunch, having driven over from Mohawk to take us back. Harry is Stokes' younger brother, a happy, good natured and obliging assistant to his brother in looking after the comfort of the guests. After lunch we devoted the afternoon, on our way home, to quails. At that I got my share of fun, but Grandpa, as usual, got more than his share of the birds.

AMATEUR PHOTO BY W. STARK.

MUSKRAT.

Winner of 19th prize in RECREATION'S Sixth Annual Photo Competition. Made with Collinear Lens.

AMATEUR PHOTO BY WM. H. FISHER.

NEST OF RUFFED GROUSE.

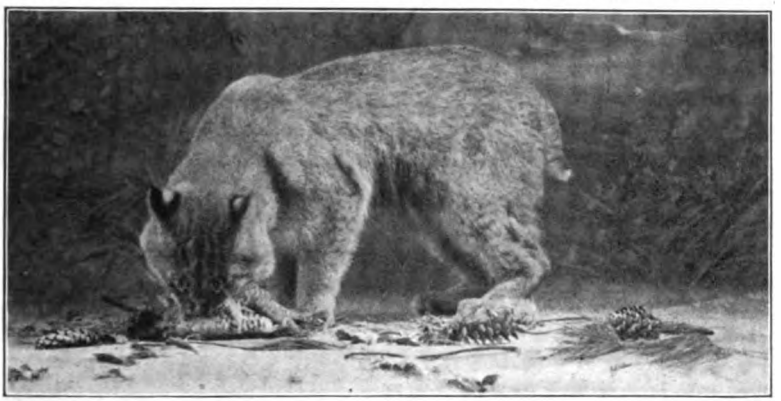
Winner of 17th Prize in RECREATION'S Sixth Annual Photo Competition. Made with Cycle Poco Camera.

THE BOBCAT'S BANQUET.

W. L. UNDERWOOD.

Photos by the Author.

A great philosopher once said, "The proper study of mankind is man." In modern times we find that the proper study of man, for at least a portion of the time, is wild animals. Thousands of men, women and children are seeking every opportunity to learn more of the wild creatures that inhabit the forests, the fields and the mountains. It is the duty of every parent and every teacher to afford those under his charge the best possible opportunity for pursuing this study.



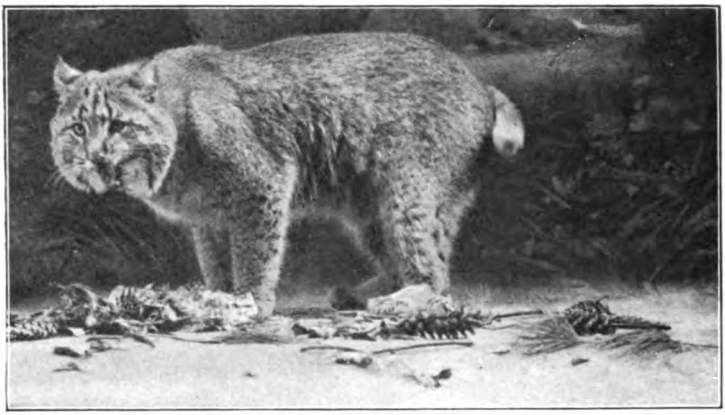
No. 1.

There is no method by which this line of study can more profitably and practically be followed than by domesticating wild animals. There are scarcely any species of quadruped in this country that can not be easily domesticated, if taken in charge when very young. The fur-bearing animals, especially, take readily to the domestic life of human beings. Take, for instance, a young lynx, or wolf, or panther, or otter, and after a few days of handling and kind treatment he becomes as affectionate as a kitten or a puppy. A fawn, of any of the species of deer, or a cub bear may also be trained within a few days or weeks; and while the nature of any wild beast is materially changed by its introduction into a family of human beings, yet its characteristics remain largely the same as in its wild state. These may be observed and studied to any extent desired, while the pet capers about the dooryard, the house, or the barnyard.

Humanitarians have often claimed that the keeping of wild animals in confinement is cruel, but this is not necessarily so. On the other hand I claim that the man who takes one of these wild beasts from the woods while in infancy, gives it a good home, feeds it regularly, and allows it proper liberty, confers on the animal a lasting kindness. I do not believe in caging up live animals and confining them to small areas; but if any such animal can have the freedom of the house, or a yard or a field, according as its nature may require, it will suffer no inconvenience from its change of environment. On the other hand, the man who takes such an animal from its wild state, saves it from suffering many a pang from hunger. He saves it from the

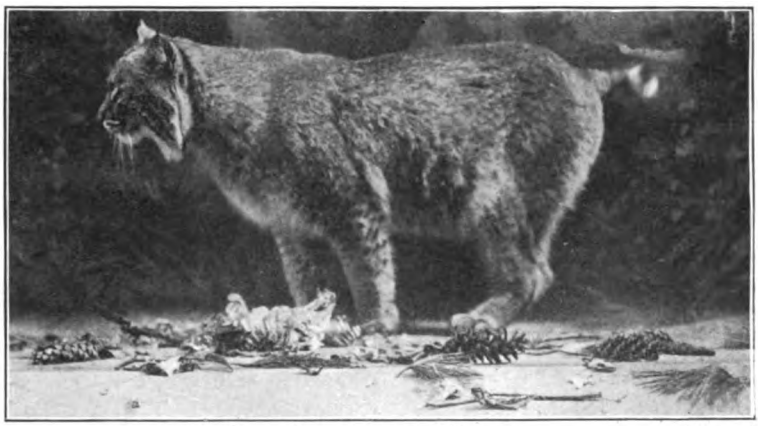
No. 2.

other wild beasts that would prey on it. He saves it from the hunter and the dog. He insures it a warm den in which to sleep, while in its natural habitat it must be subjected to cold and to storms, from which it frequently suffers severely.



No. 3.

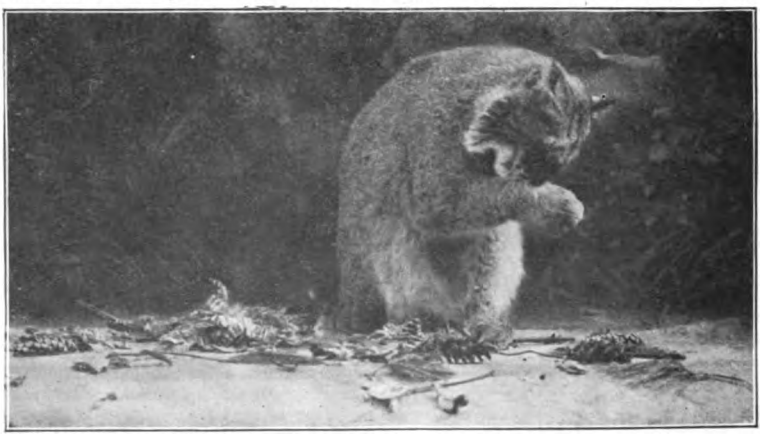
I have pursued the study of wild animals and birds for many years, and have never found a greater delight in this in any other way than in getting into close touch with a few specimens domesticated. Among these, I include a lynx, ordinarily known as a wildcat, whose acquaintance I made 2 years ago, when he was on exhibition in a store window. After some preliminaries I induced him to pose before my camera. The sittings were in a room I have arranged expressly for animal photography.



No. 4.

The first picture shows the cat as he received a grouse I had just brought him from market. Before beginning to eat, he mouthed the bird all over and crushed all its bones.

The second picture gives an idea of the wildcat's savage voracity, as he is shown in the act of eating. The third and fourth views depict an interruption and show his sinister expression of resentment at the interference. In the last of the series



No. 5.

Mr. Bob sits washing his face and paws, like an ordinary cat.

These negatives were taken with a 19 inch Goerz lens, with an exposure of 1/25 second, full aperture.

This cat broke the record for weight, tipping the scales at 33¼ pounds. The normal weight of an ordinary wildcat is about 19 pounds, though an occasional one attains 25 pounds. The weight of this one was probably due to lack of exercise, though he did not appear excessively fat.

THE CANADA LYNX.

A. T. BICKFORD.

It must be interesting to a student of nature to observe the numerous provisions made by the Creator to contro by natural means the superabundance of any one species of animal over another. Therefore we find one carnivorous animal preying on one of the same species to which he belongs as well as on the more harmless herbivorous creatures.

An instance of the above is the Canada lynx. His special mission seems to be the regulating of the increase of the small bush rabbits, or hares, which in some seasons are so numerous in our woods. Wherever the hare is found there also is the domain of the lynx, who steals upon the timid hare in his seat underneath the fallen log, or among the willows in the thicket. The lynx also catches his prey by pursuing it after a fresh fall of snow. Then the hare, impeded by the loose snow, is easily caught, as the snow is not so much of an impedimert to the lynx's longer legs.

It is a peculiar fact that hares, or bush rabbits, increase in recurring periods of years, reaching a climax in about 7 years, when some disease appears among them which reduces them from great numbers to scarcity in a short time. The lynx also increases during these years of plenty. On the decrease of the rabbit he suddenly finds himself pinched for food. At such times, impelled by hunger, according to the evidence of old trappers and hunters, the lynx preys on his own species, the weaker falling victims to the stronger. Thus the lynx becomes in himself the regulator of the numbers of his own species, preserving the balance of Nature by the performance of what seems to us an unnatural act.

The lynx is not, as one would imagine from his looks, a dangerous animal to man. He has a propensity for following a wayfarer through the woods, but it is more from curiosity than from any notion of attacking a human being. Moreover, the lynx is not at all tenacious of life, differing in that respect from most animals of the cat tribe. He is easily dispatched by a blow on the nose or back, offering little resistance when trapped.

A common mode of capturing the lynx, practiced by Indian and half breed trappers, is to suspend a snare of stout cord above a path, rabbit run or snowshoe track in the woods, taking advantage of the lynx's well known proclivity for following a track. The lynx, with great simplicity, works his head into the noose and strains on the cord, which is fastened to a clog. He thus strangles himself, making little effort to escape or chew the cord.

The lynx is also hunted with dogs. Not being swift of foot, he tries to escape by climbing a tree and is an easy mark for the gun of the hunter.

In size and shape the lynx is similar to an Irish water spaniel, having legs apparently too heavy for his body. His tail is about 4 inches in length and is tipped with black. His head much resembles a Maltese cat's, a fringe of hair passing from jaw to jaw; and his ears are tipped with a few long black hairs.

In color the lynx is yellowish gray, a dark strip passing down the back, the sides being spotted with black and the belly white. A hide when stretched will measure 5 feet 6 inches from tip of nose to end of hind foot.

It is hard to say which would be likely to be the aggressor in a conflict between an eagle and a lynx, but I have seen unmistakable evidence in the snow that these 2 do engage in mortal combat. By the lynx tracks and the eagle feathers it was easy to read that in this case the lynx had come off victorious and had capped the climax by making a meal off his late antagonist.

"Did you notice what a pleasant odor there was in that book department?"

"Yes. I presume it came from the spicy literature."—London Tit-Bits.

DOES THE LYNX DESTROY DEER?

L. D. GILMORE.

Lovers of legitimate sport must look with profound regret on the rapidly diminishing numbers of our game animals. The pot, market and hide hunters and the tourist ambitious of a record ally themselves with those forces which Nature has set to prey on the weaker side.

Taking the deer as the type of our game animals and examining the natural forces just referred to, we find that the most common, as well as most formidable, is *Felis concolor*, or the mountain lion. It is admitted by most hunters of large game and by students of zoology that in the rapid decrease of deer during the past few years the mountain lion has been a factor of no small importance. Are there not, however, among our *carnivores* others which relish venison, and whose depredations on the deer, though not so noticeable as those of the lion, still assume greater proportions than one would at first imagine?

Following is an incident which gave rise to the question in my mind:

Early one morning November last Frank and Charley Allen and A. W. Muckey, all of Dotsero, Colorado, while riding along the old Defiance trail below Dotsero, observed in the snow evidences of a fierce struggle which had continued for some distance down the hill side. Muckey dismounted, followed the course taken by the combatants, and soon came to the still warm carcass of a deer. Leading away from the body were fresh tracks of a lynx. The beast itself, its repast thus rudely interrupted, was seen, as it sped away, by the Allens, who were still sitting on their horses on the trail above.

A day or 2 later, being in the vicinity and wishing to satisfy myself with regard to a case, which, if true, I believed would be of interest to many, I found the carcass and carefully examined it. Contrary to my expectations there were no marks on the body to indicate that the deer had been wounded previous to its encounter with the lynx. Nor is that supposition probable, for no blood could be found in the bed where the deer had been lying nor along its trail. The only wounds on the body were those made by the lynx. It had bitten the front quarters through and through and unjointed them at the shoulder, thus totally disabling the deer.

Tracks in the snow told the whole story plainly. The fawn, for such it was, had been lying under a small cedar. Alarmed, presumably by the approach of the horsemen, it had risen and started up the trail. It had gone but a short distance when it came face to face with the lynx coming down the trail. The deer sprang aside, but too late; the lynx sprang as well and alighted on the deer's back. Then began the unequal struggle.

Either the force of the lynx's leap knocked the deer down, owing to the steep declivity, or else it threw itself down to get rid of the brute on its back. Whichever the case, it never rose again; down the hill they went, rolling over and over. But a little way and blood began to stain the snow; a little farther and the snow was crimson; another step, and the track ended in a pool.

Having this instance in proof, is it not possible that enough deer are killed by this smaller member of the cat tribe to materially affect their numbers? The fawns, of course, are the ones that suffer; indeed, I much doubt a lynx's ability to kill a full grown deer.

Since learning of the case here narrated I have discussed it with several old hunters. None could recall a similar instance; all expressed surprise; and some even doubted the truth of my assertions. All had seen many deer, old and young, which had been killed by *Felis concolor;* but by a lynx, never! Here, however, the question arises: Might not some of this work have been done by the lynx instead of the mountain lion? I should like to hear from some of our hunter-naturalists as to the probable correctness of my inference.

When courtship is over, it is over; when marriage is over, it is just beginning.—Exchange.

A DAY ON THE DELAWARE.

ZANE GREY, M. D.

Our summer outing slipped by swiftly, as only such days can, and the last one arrived. As we started out in the early morning the fog was rising from the river, and hung like a great grey curtain along the mountain tops; while here and there, through rifts, the bright sun shone, making the dew sparkle on the leaves. Far up the mountain side could be heard the loud caw of a crow, and the shrill screech of a blue jay. A grey squirrel barked from his safe perch in a tree by the roadside. A ruffed grouse got up from the bushes along the road, and with a great whirr, disappeared among the trees. The air was keen, with a suspicion of frost in it, and fragrant with pine and hemlock. This was to be our last day. We were going to improve every moment of it, and, perhaps, add more glorious achievements to memory's store, to be lived over many times in the dark, cold days of winter. I looked at Reddy and marvelled at the change a month could bring. He was the color of bronze and the spring of the deer-stalker was in his rapid step.

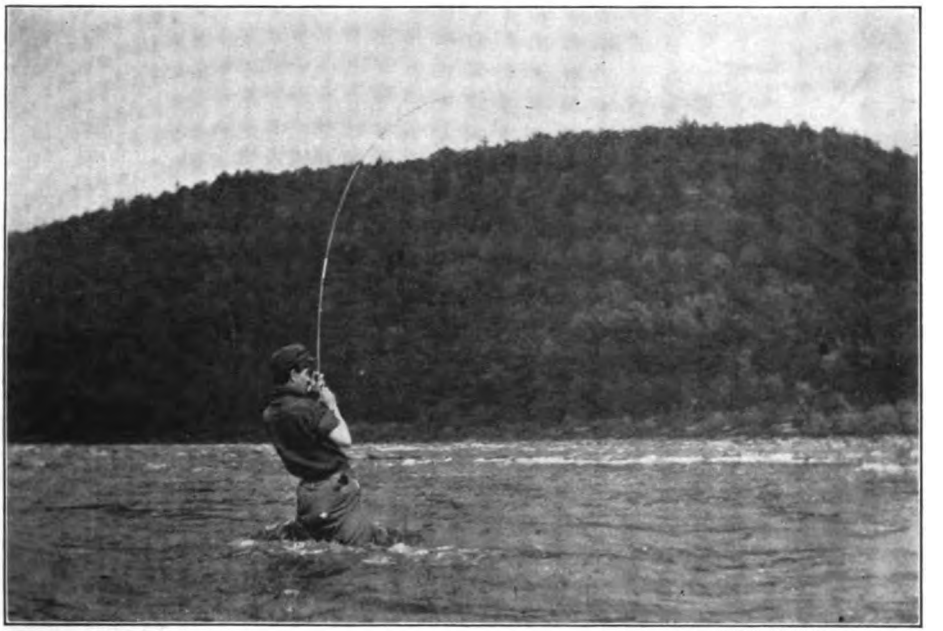
"Well, Doc, looks as if you were not going to get that big one to mount for our collection," he said.

"I am afraid not, unless I catch him today," I said. "We would have had him if it had not been for your childish and idiotic failure to land the big fellow you hooked the other day."

"I wish you would stop reminding me of that, and give me a chance to forget it," he answered. "I suppose you never make any mistakes."

"But it was so careless," I insisted, "to have a 4 pounder in your hands and then lose him."

"Yes, I know; but let's forget it. I hope you will hook one twice as big and that he will break your tackle and give me a chance to get a picture of you for future reference," he replied.



AMATEUR PHOTO BY R. C. GREY.

AT THE OTHER END A MONSTER.

At the lower end of the big eddy below Westcolang falls, the Delaware narrows, and there commences a 2 mile stretch of eddies, rifts, falls and pools that would gladden the heart of any angler.

"Now, my boy," I said, "we will toss for choice as to who takes the other side going down."

"I don't know if I would not just as willingly take this side," said Reddy, noting the swift water between him and the other shore.

"No," I answered, "that would not be fair. You know I am acquainted with the river, and the other side is the best, so here goes for the toss."

I won the toss and chose the near side, with a cheerful consciousness of my generosity which was not in the least affected by Reddy's suspicious glances. He was game, however, and waded into the swift water without another word; and he got safely across a deep place that had baffled me many a time. I stepped into the water, which was clear and beautiful, and as cold as ice. In a little eddy below me I saw the swirl of one of those vultures of the Delaware, a black bass, as he leaped for his prey, and sent a shower of little shiners out of the water, looking like bright glints of silver as they jumped frantically for dear life. It was a grand day for fishing, and the bass seized hungrily at any kind of bait I offered. They were all small, however, and, as I was after big game, I returned them safe to the water.

Occasionally I looked over to see what Reddy was doing. Usually he was up to his neck in the water and half the time his rod was bent double. I also noticed something that worried me considerably. It was a long, black object, and it floated from a string tied to Reddy's belt.

About noon we both made for the big stone near the middle of the river, where we rested and had our lunch. My fears were realized. That long black object was a 3-pounder, a beautiful specimen of the red-eyed bronze-back of the Delaware.

"Have you been fishing, or did you come along just for company?" asked Reddy, cheerfully. I made some remark about the luck of certain people.

Reddy was satisfied to stop then; in fact, he loafed the rest of the day; but I am a hard loser and I hated to quit. Five o'clock found us at the foot of the rifts with only one more hole to fish. It was the Beer Mug, a hole so deep that it looks black, and always covered with great patches of foam. It was a likely place for a big fellow, but I had never caught one there. Now I have memories of that hole which will never be effaced.

Reddy hooked and landed a big eel, which wound the 6-foot leader entirely around its slippery body. This made Reddy so tired that he said things which can not be repeated here, and quit for the day.

I caught 2 small bass and a sunfish. Then I tried a helgramite for a change. I fished the hole every way, but without success. I was reluctantly winding in my line, of which I had more than 100 feet out, when I felt a little bite and hooked what I knew at once to be a chub. I continued to reel in my line in disgust, when suddenly it became fast on something. It felt like a water-soaked log. I pulled and pulled, but could not get the line off. I did not wish to lose 50 feet or more of good line, so I waded out and down the side of the pool to a point opposite where I thought I was fast. Imagine my surprise when I got there to find my line going slowly and steadily up stream, through water that was quite swift. I could not believe my eyes, and was paralyzed for the moment. That chub was 6 inches long, probably, but he could never have moved the line in that manner. Reddy dropped his things and became interested in a moment, with his characteristic remark that "something must be doing."

Then I struck hard, for I knew I had hooked a heavy and powerful fish.

At the first rush he took 20 yards of line and pulled my tip under water. The reel went around so fast it burned my thumb. With one yell I settled down to business. I knew my tackle and that if the fish could be kept in that pool he was mine. He made for the head of the pool and then he went from side to side in short, furious dashes. My brother was yelling to me like a lunatic, and was running around snapping pictures of me with his camera. I controlled the fish perfectly for the first few moments of that struggle, and then, with what seemed to me a settled purpose, he started down stream for shoal water. Below were swift and dangerous rifts for wading and I knew if he got in them I should lose him. Twice I tried to stop him, but each time I saw the wet line stretch with the heavy strain on it as he tugged doggedly; and fearing it would snap, I had to follow him. I waded down stream as fast as possible and as I climbed over a big stone in my way I saw the fish distinctly in the shallow water below me. It was a pike, fully a yard long, and as his great yellow body flashed in the water, his head pointed toward the bottom and tail up, I groaned in spirit. He was not even tired, and there I was, in a dangerous place to wade, a 5-ounce rod in my hands, and at the other end of a silken thread a monster.

Wading over a bad place I lost my balance and my thumb slipped off the reel. At that critical moment the pike made his fiercest, maddest rush. It was all over in less than a second. My reel, being a 4-multiplier, overran, the wet line tangled and became fast, there was a snap, and I was looking miserably at a limp line that floated on the swift water in front of me. That was an unhappy moment.

As we walked down the winding mountain road Reddy generously forgot his wish and tried to cheer me, but without avail. I could hardly see the beauty of the setting sun, going down behind the mountains in a red blaze of glory.

A BEAR AND A PISTOL.

A. M. POWELL.

During one of the long days of July, 1900, we were in latitude 63° and 64° North, on a high rolling spur of the Alaskan range Below us, about 5 miles away, was a beautiful lake, covering 2,000 or 3,000 acres; and 7 miles farther away could be seen Coolkana lake, which extended 15 miles beyond, to the Southward. A silvery thread of water connected those lakes, and following it along the foot of the spur we could plainly see that the source was in a large glacier to our right.

AMATEUR PHOTO BY H. R. MONTIFIELD.

FORT YUKON, ALASKA.

At that time of year that silvery thread was a large river, and a mile below the glacier it divided. Half its volume went through the lakes mentioned, to Copper river. The other branch turned Westward some 5 miles, then abruptly Northward, plunging into the heart of the mountain range.

That scene repaid us for the hardships we had endured. It was a revelation never before looked on by a white man. One stream reached the Pacific by way of Copper river; the other had apparently drilled a pass back through the mountains, and wound its course by way of the Tanana and the mighty Yukon to Behring sea. In other words, a salmon could ascend the Copper river through the rugged coast range, up the Coolkana to this source, and descend this West branch through another range of mountains to the Tanana the Yukon and the far North seas.

We descended and camped on the banks of this river, and spent a week exploring this West branch, which proved to be the East fork of the Delta river.

On our return we camped near the outlet of a beautiful lake. I had just picked up my revolver to kill some ptarmagin which were cackling near, when my companion exclaimed,

"'Look at the bear!" A silvertip was lumbering along the beach of the lake, toward us, but on the other side of the outlet. I took my camera and slipped down to the edge of the water to get his picture. The light was just right, the lake scene was beautiful; the luxuriant grasses on the shore, with a scattering of spruce trees for a background, made this an opportunity of my lifetime. I was disappointed; the camera had been broken during the day's travel and would not work.

The bear was only about 40 steps away, and I decided to kill him. From a hidden position I gave him a mortal shot. With a yell he sprang into the air, fell, rolled and tumbled, biting the bullet hole, fighting the ground, brush and rocks. Then he darted into the brush, and by his fighting and growling I could tell where he was. In another moment he dashed out, and I sent

AMATEUR PHOTO BY H. R. MONTIFIELD.

HAULING LOGS IN SUMMER, FORT YUKON.

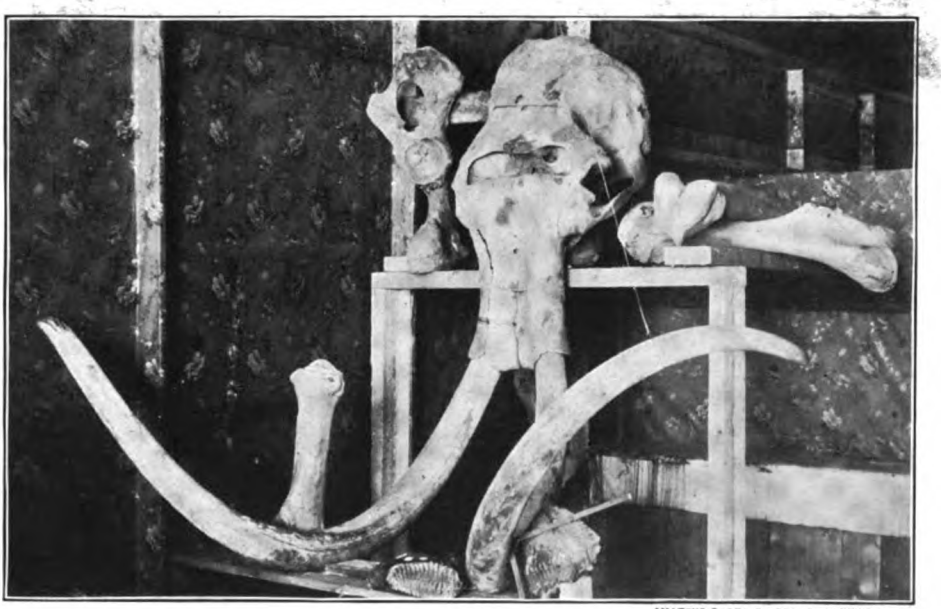
another bullet through his vitals. Again the performance was repeated, and when he again made his appearance it was at the foot of an embankment, which he tried to ascend; but there he stopped, stood up and looked around for the source of his trouble. Then a last deadener went crashing through his heart, and he gave up the ghost.

We had to swim our horses to get to him, but when darkness closed in, we had him dressed and hanging in camp. Every shot was a mortal one, but you have to give those fellows time to die.

We had *cached* our heavy supplies in the Mancomen country, hence we had several loose unloaded horses along. As I never did waste meat I resolved to take what we could kill on our return as far as the mining camp on Slate creek, about 30 miles on our way.

The next morning, while looking for the horses, we saw a caribou standing in the shallow water about 200 yards away. It was a long shot for a 6-shooter, and the first bullet splashed the water under him. He bounded off, but too late to escape, as I had the range; and the next shot added 200 pounds to our load.

At one time that afternoon, we were traveling along a creek up which thousands of salmon were ascending. We were trailing in single file, myself in the lead, 6 pack horses following, and my companion in the rear. I had just shot a red salmon, tied it to my saddle for supper and remarked that it was a likely place for a bear, when out of the brush with a snort, through the water with a splash, and up the hill bounded a huge grizzly. He stopped about 145 yards away, and, a he stood looking down on me, he looked the monarch of the Northland. I dismounted and sent a hard bullet through his vitals. You could have heard him bawl if a mile from there. After the usual rolling and tumbling, he came for me like the wind. I sent another ball in front of his left shoulder into his heart cavity. Another bawl, roll and tumble, and again he came, I knew I was shooting for my life. His head was down and I shot for the top of his neck. If it missed the neck bone, it would reach his vitals. It did the work by shattering the neck bone and piling him up in a heap. I took 43 steps to where he fell.



AMATEUR PHOTO BY GEO. G. CANTWELL.

MAMMOTH REMAINS FOUND IN BOTTOM OF 55-FOOT MINING SHAFT, HUNKER CREEK, KLONDYKE, JANUARY, 1901.

My companion remarked that there had been only time enough to get in one more shot, and as he was unarmed and there were no trees within 10 miles it would be interesting if I would state what I had intended to do in case I had failed to kill the bear. I resolved never to shoot at a grizzly from open ground if he knew where I was. I broke that resolution about 3 weeks later, ran a foot race with a bear, and only made my escape by dodging and jumping down an embankment. It is a wonder to me now that I ever did go back

AMATEUR PHOTO BY GEO. G. CANTWELL.

WHITE MOUNTAIN SHEEP FROM UPPER KLONDYKE.

after my hat; but that is another story. This bear was a monster, and dressed about 800 pounds. We traveled all night in the rain to reach the mine, and the boys of that camp were made happy by a feast of fresh meat.

On this trip I used a 6 shooter, with long barrel and easy trigger, and shooting Winchester .44, smokeless powder and hard bullet. There is an ignorant class on one side of a pistol, and a disreputable one on the other, who think that the only purpose for which it was made is to kill their fellow men; but old mountaineers generally realize in it the best and handiest game gun in use.

AN IDLE FANCY.

CANDICE BRAMBLE.

In a country lane where the trees o'erlace
And the ferns grow tall in a shady place;
Where the choral choir joyous anthems sing
And the flags to the breeze their banners fling;
There a tale of love was one day told
To a shy briar rose, with a heart of gold.

The alder tall bends his stately head
O'er the fair faced flower in her gown of red;
And the sunbeams glint, where the breezes sweet
Cast spicy petals around their feet;
While he tells his tale with a stately grace
To the shy briar rose with her blushing face.

But though summer days are so passing sweet,
They haste away upon flying feet;
And today, as I walk in the forest lane,
I look for the lovers, but look in vain.
For the alder tall and the wild rose red,
Alike with the summer days, are dead.

Tommy.—"I am sure papa is dreaming about the seashore."

Mamma.—"Why do you think so, Tommy?"

Tommy.—"Because he snores just like the surf."—Judge.

AMATEUR PHOTO BY H. E. LOFTIE.

6 O CLOCK, P. M.
Winner of 27th Prize in RECREATION'S 6th Annual Photo Competition.

AMATEUR PHOTO BY DR. J. B. PARDOE.

WILD RABBIT.
Winner of 24th Prize in RECREATION'S 6th Annual Photo Competition.

WOODCHUCKS.

ERNEST C. ADAMS.

Photos by the Author.

If you should speak to a native of central New York or Pennsylvania of an American marmot, he would probably think you did not know what you were talking about. If you had an opportunity to point out the animal in question he would tell you it was nothing but a common woodchuck, or ground-hog, and it is not unlikely you would hear him mutter a few words about

EXPECTING CALLERS.

the "pesky critter" as he went into the house for his gun.

The American marmot, or as he is better known, the woodchuck, though by no means so spry as his cousin the squirrel nor so quick witted as "Molly Cottontail," the rabbit, is nevertheless a most interesting little fellow. In appearance he is not strikingly attractive. His body is short, thick, somewhat larger than that of a full grown cat, and covered with coarse, red-brown, grizzled fur. His legs are short, the fore feet armed with long claws, which he uses in digging his burrow and in defending himself. His head is round, pointed slightly at the nose, and his bright, brown eyes are set wide apart.

He is a strict vegetarian in diet, eating clover, apples, and tender leaves, preferably young bean tops and pea vines, which has made the farmer his dire enemy. The woodchuck is a great coward unless cornered, when he will often fight with such fury as to rout animals greatly his superior in size and strength.

His home is but a hole burrowed in a hillside. It has 2 entrances, one a few feet lower than the other, to prevent his being drowned out by the spring rains. The entire length of the burrow is seldom more than 15 feet and is generally a single passage. Though a woodchuck may have 2 or 3 burrows which he occupies at different times in a year, there is never more than one animal at a time in a burrow, except the mother with her young. Some wise old woodchucks show great sagacity in the construction of their homes; throwing all the dirt out at one entrance, thus leaving the other almost unobservable. Into these holes they crawl in October, fat and sleek as butchers' cats, to emerge 6 months later, after having slept through the whole winter, as thin as the proverbial rail and with appetites that would do credit to farm hands. During the winter months they do not wake even for food, but are nourished by the fat they have accumulated during the summer. John Burroughs says, "Dig one out during hibernation, as Audubon did, and you find a mere inanimate ball, that suffers itself to be moved and rolled about without showing signs of awaking; but bring it in by the fire, and it presently unrolls, opens its eyes and crawls feebly about. If left to itself it will seek some

THINKING IT OVER.

dark hole or corner, roll itself up and resume its former condition."

Last summer one of these creatures took up his abode temporarily in the rocks near my home in the Catskills. His hole was little more than a slanting crevice in the rocks; a sort of natural cave about 7 feet long with an opening at either end. A large apple tree overhung his front door and kept him well supplied with his favorite fruit. He occupied this hole as a kind of summer cottage during the apple season. Many times I have watched within a few feet of his door as he came haltingly out, eyeing

STARTING FOR A RAMBLE.

me curiously. As long as I kept perfectly still he advanced, but my slightest movement sent him scurrying back with a frightened whistle. After a time he became tame enough to take slices of apple I held toward him on a stick, but could not be induced to take them from my hand. As the season grew later he came out less often for the apples I used to leave on his doorstep. The second week in October he disappeared finally and I knew he must be rolled up for his winter's sleep.

The following story, told me by a friend from Greene county, New York, may show that the woodchuck is not always so stupid as some folks think. In his own words, "Last summer, as I was crossin' the meadow back of the house, with my rifle across my arm, I spied an old woodchuck on his haunches not 100 paces from where I stood. I raised the gun to fire when suddenly he disappeared. It surprised me a bit, but I didn't stop then to hunt him up. On 2 consecutive days the same thing happened. The woodchuck would sit there till I raised the gun and then disappear off the face of the earth. The third day I made up my mind to find out how the old boy did the trick; so 'stead o' raisin' the gun when I saw him I started walkin' up to him, sorter steady and keerful. There he sat like a stump till I was 'bout 2 rod away. Then I raised the gun slow like, squinted along the barrel and was just goin' to pull the trigger when he popped clean out o' sight, hind feet first. Well, sir, when I got to that spot wot d'ye s'pose I seen? There was a hole goin' straight into the earth about 5 feet down. Now, when he saw me a-comin' he run to the hole and stood up with his hind legs astraddle of it and waited till I raised the gun; then he just pulled his hind feet together and dropped into that hole as neat as any circus feller ever went through a trap door."

The pictures with this article are from photographs I took last summer. To obtain these took me a week of almost constant watching, and out of 18 exposures

LUNCH TIME.

but 5 were successful. So timid was the little fellow that I was obliged to stand 30 feet behind my camera and operate the shutter with a long string. He did not seem to fear the camera until he heard the click of the shutter. That sent him back into his hole, but the picture was already taken.

While Bishop Potter, of the Episcopal Church, was traveling through Louisiana some years ago he addressed inquiries to his fellow passengers with a view of obtaining knowledge regarding the orchards and fruit interests of the State. "Do you raise pears in Louisiana?" inquired the bishop. "We do," responded the Louisianian, "if we have 3 or better."—Ex.

A RACKET IN THE ROCKIES.

A. L. VERMILYA.

Comanche Joe's hunting story, "A Modest Bag," published in December RECREATION, interested me greatly; and while I have never known a sportsman to tell an out and out lie, I am forced to believe Comanche has exaggerated slightly this trip. The account of his adventures seems straight enough save that part wherein he says his partner killed 3 elephants simply by snapping a cap pistol at them. This would have sounded reasonable had the pistol gone off, for I once bagged a rhinoceros, 11 ostriches and a spike-horn alligator with one shot from a Roman candle; but Joe's story is preposterous and will not hold water. Come now, Joe; hadn't you been putting a new faucet in the cider barrel just before you and your pard went after those elephants?

But Joe's story leads me to believe that an account of an adventure which Dave Butler and I had last fall, while hunting grizzlies in the Rockies, might be of in terest to the fraternity. Dave is a good chap, with a childish weakness for grizzlies; and when not engaged in hunting them is chiefly employed in running a hardware store, raising a large family of pretty girls and smoking a doubtful looking cob pipe. Dave had never shot a grizzly; but once, when running away from a jack rabbit, which his fevered imagination had magnified into a mountain lion, he caught his foot in a bunch of buffalo grass and fell on a prairie chicken, which was setting on 119 eggs, smashing the whole outfit. This was not exactly shooting grizzlies, but it was so near it that for some time after Dave was real proud of the exploit.

But about our hunting trip. Dave and I started out from camp one morning just after sunset, and as the moon was shining brightly we concluded to strike across the plains to a place where we often hunted prairie chickens. We thought we would bag a few chickens, and then shoot our grizzlies on the way back to camp, so as to avoid having to carry them with us all day. A dozen good sized grizzly bears make quite a load, as all old hunters know.

We were in a beautiful part of Montana, about 300 miles East of the Rockies. There was not a bush nor a tree in sight, and we were looking sharp for chickens when my pard, thinking he saw a prong-horn grizzly, took his corncob from his mouth and, taking careful aim with the pipe, fired at the supposed bear. Then he climbed a tree and awaited developments. His shot knocked a horned toad off from a boulder about 20 feet away, but did no further damage; while his grizzly turned out to be nothing but a sacred cow, which had wandered away from Barnum's circus while that unparalleled show was giving an exhibition in Yuma, Arizona, the day before.

We went on, and had traveled about 47 miles, when the sun was darkened by the greatest flight of penguins it has ever been my good fortune to see. They were probably on their way to the North Pole to vote, and didn't care for expenses. These birds so completely obscured the sun that the moon rose—though it had set but an hour before. That was the only time I remember having seen this luminary rise more than once in 24 hours.

Dave got rattled, and stepped behind a tree to light his pipe. He always fills and lights his pipe when he gets rattled; but in his excitement he got the bowl in his mouth, which made him hot. I banged away into the flock, and as I had a pump gun, loaded with a pound and 16 ounces of hollow point bullets, I brought down a perfect shower of birds. In falling one of the pelicans lodged in the barrel of my gun, which happened to be pointed upward; and as I had left my ramrod in camp, and so could not remove the bird, I put a fresh cartridge into my gun, intending to shoot the ostrich out later.

We picked up 627 penguins and were putting them into our game bags when, chancing to look up, we saw a number of enormous grizzlies coming in a line, along a narrow canyon between the mountains, only a few rods away. Dave grabbed his pipe and, pointing it in the direction of the approaching bears, pulled the trigger; but finding the mainspring broken, he lit out for camp at a gait which allowed him to touch the ground but once in each 27 and ½ rods. However, I was used to grizzlies, and proposed to fight it out on that line if it took all winter.

About 40 rods from where I was the canyon made a sharp turn, and around this corner, just as I would think the last grizzly had appeared, would come still another. The foremost bear in the line was now only about 20 feet from me and I could delay no longer; so taking a hasty aim, I fired. But I had clean forgotten about the wild turkey in my gun, and this was mighty lucky; for in the crop of the bird happened to be a smooth,

round pebble, which exactly fitted the bore of my gun, and which proved a more powerful missile than any case hardened, ball bearing, steel jacketed bullet ever made. The bears were in line when I fired, and at the discharge of my trusty muzzle loader they all went down, and, after feebly waving their off hind legs, expired.

But what surprised me most of all was to see that pebble, after going through all those bears, stand dancing and spinning in the air, like a sea sick bumble bee or a meteor with a jag on. But the intelligent projectile knew its business. It was waiting for more bears, and, sure enough, in about half a minute, around the bend came another grizzly. When he came in line the gritty pebble skipped through him like a buckshot through a rotten pumpkin, and bruin waved his off hind leg and expired, as the others had done. Two more bears came around the corner after that, and were similarly dispatched. Then, as there was nothing more to do, the pebble whizzed on and shattered itself to pieces on a mushroom half a mile away, killing a skunk and scaring a rattler so bad he glided away, forgetting to take his rattles with him. I fastened a handle to the deserted tailpiece, making a rattle box, and my 2-weeks-old baby is sitting on the floor playing with the novel toy at this moment.

I gathered up my bears—there were 113, and not one of them weighed less than 1,200 pounds—and stringing them on a willow twig as a boy would string bullheads, started for camp, well satisfied with my day's sport. When about half way home I met Dave coming to see how I had made out. He explained his unceremonious departure by saying that just as the grizzlies appeared he remembered he had left his toothbrush outside the tent that morning; and, thinking that a porcupine might eat it, he had thought it best to go back and look after it. I readily forgave him, for Dave is a decent fellow in the main, and together we toted our grizzlies into camp. That evening we dined sumptuously on bear claws, having all we could eat and some left to warm over for breakfast next morning.

AMATEUR PHOTO BY GEO. G. CANTWELL.

RAVENS

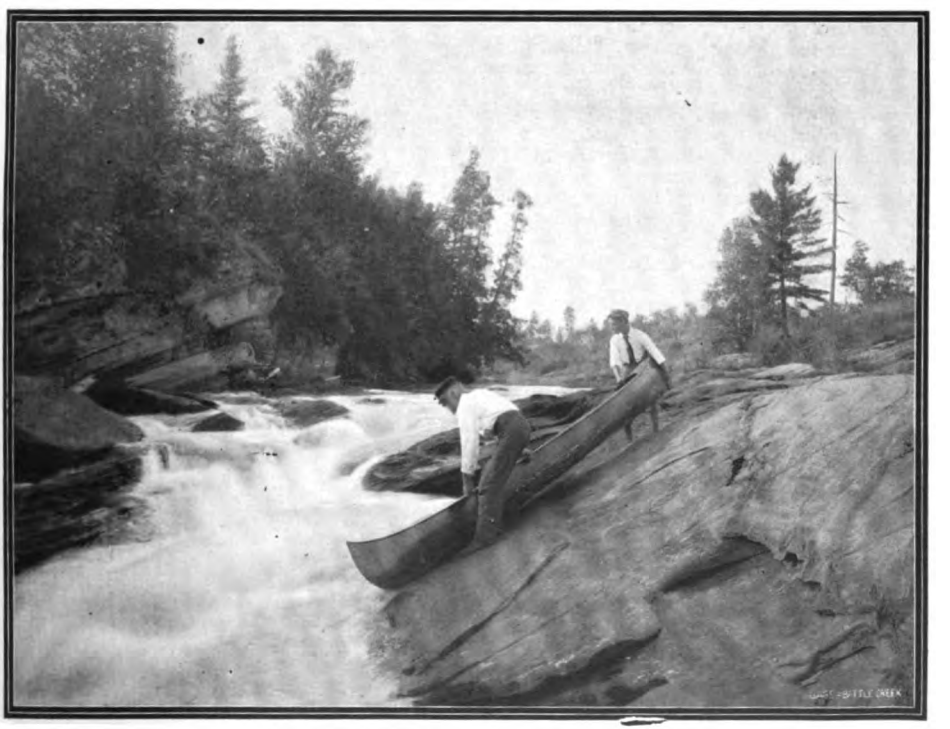
DOWN THE MOON RIVER.

L. S. WILSON.

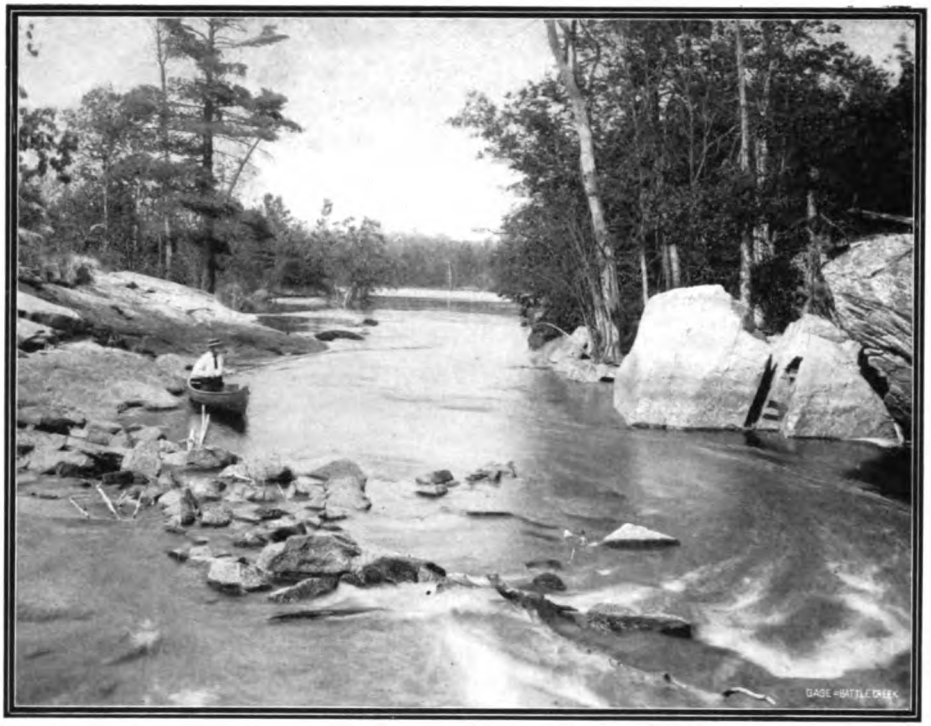
One day that overshadows others spent on a summer trip in the delightful Muskoka country, is Moon river day. Doubtless there are many streams equal in picturesqueness to the Moon; streams on which just as delightful days may be spent; but I have not seen them.

The Moon and the Muskosh rivers deliver the waters of Lakes Joseph, Rosseau and Muskoka into Georgian bay. These waters fall 20 feet or more at Bala, at the extreme Western shore of Muskoka lake, over rocks and boulders, and for 2 miles form the Muskoka river, which, after that distance, is known in its Northern branch as the Moon river, and in its Southern stream as the Muskosh. Both are wild. They make their crooked ways through forests of pines, hemlocks, and oaks, these trees towering high above a mass of tangled undergrowth through which, it seems, man has never passed. Fires of long years ago, perhaps in Indian times, have left their marks in many places, and tall pines, straight as arrows, devoid of all green, lift their heads, which have been washed by he rain and bleached white by the sun, high above the second growth. They belong to the old guard. The beds and shores of these rivers are rocky; falls and rapids abound and add much to the charming wildness.

The Moon is a narrow stream. The impression is that it has literally forced its way through the forest, cutting its irregular course in many places through solid rock. You glide along for miles between woody banks and moss covered rocks without sign of man. There are no villages, no camps, no sound save voices of the wood birds, the musical running of the rapids, the tumbling of the falls and the constant dip of the paddles. You feel that you are viewing a creation of nature's chief landscape gardener. You are a congregation, all by yourself, small but attentive and appreciative, to whom the great preacher is delivering a mighty sermon without words. You will not forget it. In after days you will, perhaps, contrast it with the spoken word from the desk in some grand church and that silent sermon will be with you still, strong, refreshing and inspiring.



A PORTAGE ON THE MOON RIVER.



FISHING ON THE MOON RIVER.

Bala, on Lake Muskoka, is the starting point for the Moon river trip. Guides who are familiar with every rock in the channel, who know which lively rapids are not safe to shoot, will, for a reasonable sum furnish neat canoes and paddle where you will. You will not, in all probability, see a living soul after once fairly away on the trip. Start early. You will require no advice about returning. If you have never experienced the delight of a canoe trip, then there is a new sensation added to all the wealth of scenery on view wherever the eye turns. If the trip is made in the spring, and sometimes even as late as July, you will see the river drivers logging between Bala and the junction of the Moon and the Muskosh. After passing the Muskosh do not expect to hear the voice of man other than your guide. You are entering a wilderness of woods and rocks. A solitary bushranger may call from the shore and ask you if you are going far, and warn you to carefully extinguish fires built at lunch hours; but the probability is that you will not see or hear even him.

Once in the Moon you will be enthusiastic over what appears to be a quiet little stream, and will wonder if, indeed, falls and rapids are before you. Ere you have ceased wondering, you have your answer; you hear a roar and in a moment your guide is saying, "We will have to make a short portage here." The carry is necessitated by the falls, and a dam is constructed to force more water through the Muskosh, to aid the running of logs to Georgian bay.

You "carry round and put in" and are off again. Another half mile or so and you approach a rapid too swift and too stony to run. A little farther on what is known as the Island portage is reached. Here great rocks rise in the center of the river, creating rapid currents on either side, the water rushing and foaming over sunken boulders that forbid the safe passage of canoes.

Your guide may ask before you have covered an additional 20 rods,

"Care if you get a dipping?"

Answer him as you like, but if you say "No," he will shoot the next rapid. Give him your assent and have a swift ride down the watery slope. The stream has a treacherous look, tumbling as it does over rocks and making a slight bend, but the strong hands at the paddle will safely carry you through. If fishing be one of the objects of your outing, the canoe will be run upon a bit of marshy land at the foot of the rapids and you will chase a lively breed of frog. In season, this low land is feeding ground for deer.

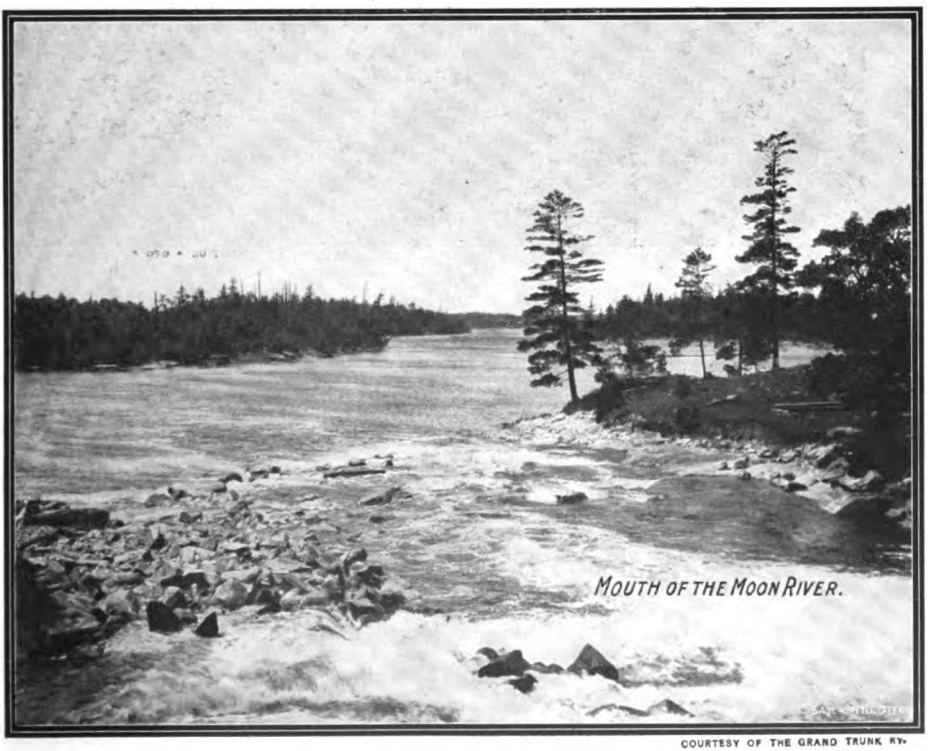
Once more in the canoe, you move quietly along, making many short portages. Each time you step on land you note the density of the woods, the impassable

tangled underbrush and the queer shale rock formations. These portages give most welcome varieties to the trip. At about 10 miles from Bala, your guide pushes up a short stream and sticks the nose of the canoe into a patch of rushes. He crowds the little craft through tall, coarse grass and water lilies for 100 yards and then enters 'Longe lake, noted in that region for its muskalonge. It is a small lake, with its shores well wooded, and you will have poor luck indeed, if, after an hour, your patience is not rewarded by fish that are fish. A 10-pounder is about the average, and he will give you a tug that will repay you for the journey, if you have not already felt repaid 100 times.

Back into the river, you rest at one of the falls for lunch, casting for bass above and below the falls with success always. You can go through to Georgian bay if you like, and back to Bala by the Muskosh, a sterling canoe trip requiring 3 days or so. Nearer the bay the falls are more abrupt, the rapids more swift, the portages longer, but the grandeur of the scene remains until you reach open water. A good day's trip is to 'Longe lake and back to Bala. The return with the slanting rays of the setting sun lighting the tops of the trees, with the river's quiet pools and little bays acting as mirrors for the perfect reflection of everything on the shore line, and with gulls, cranes and owls in view as you glide along, makes you conscious of a restfulness peculiar in its charm, that you wish might be abiding. It can not long remain. Like all good things, it too, has its end.

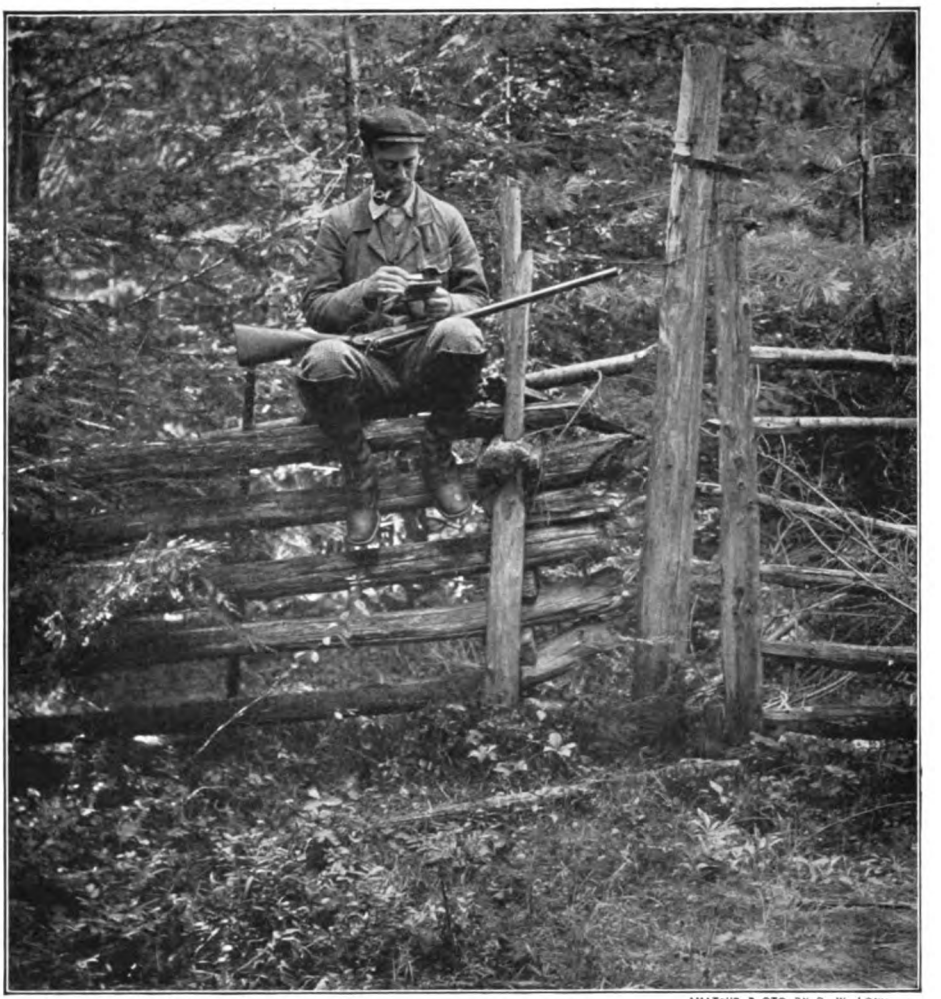
It has its end in fact but not in fancy. Memory will retain the scenes of such a trip and permit us to bring them up when winter winds are blowing and when ice and snow hide stream and field. We may see in the grate fire before us the summer blue of the sky the sun tinted green of the woods; hear the delightful ripple of the winding brooks and the restful songs of the birds. Nature speaks at all times in every season to those who are alive to her charms. Her summer voices to the many are most melodious, but even cold, bleak, December's voice, though often harsh, has in it no discord for those who hear aright.

If all memories ended with our summer vacations what little rest or enjoyment would our outings afford. The good that comes from living over a delightful experience, had in close communion with generous nature, is not to be counted in dollars. How rich, then, is one who, having seen, has retained the wondrous pictures to be viewed on every side during a vacation wandering in this matchless region of the Muskoka lakes.



MOUTH OF THE MOON RIVER.

COURTESY OF THE GRAND TRUNK RY.



AMATEUR PHOTO BY C. W. LONG.

A HUNTER'S SOLACE.

Winner of 10th Prize in RECREATION's 6th Annual Photo Competition.
Made with Anthony Platyscope lens and Carbutt plate.

"I saw Mrs. K. going into an auction sale last Monday. Isn't her craze for bargains extraordinary?"

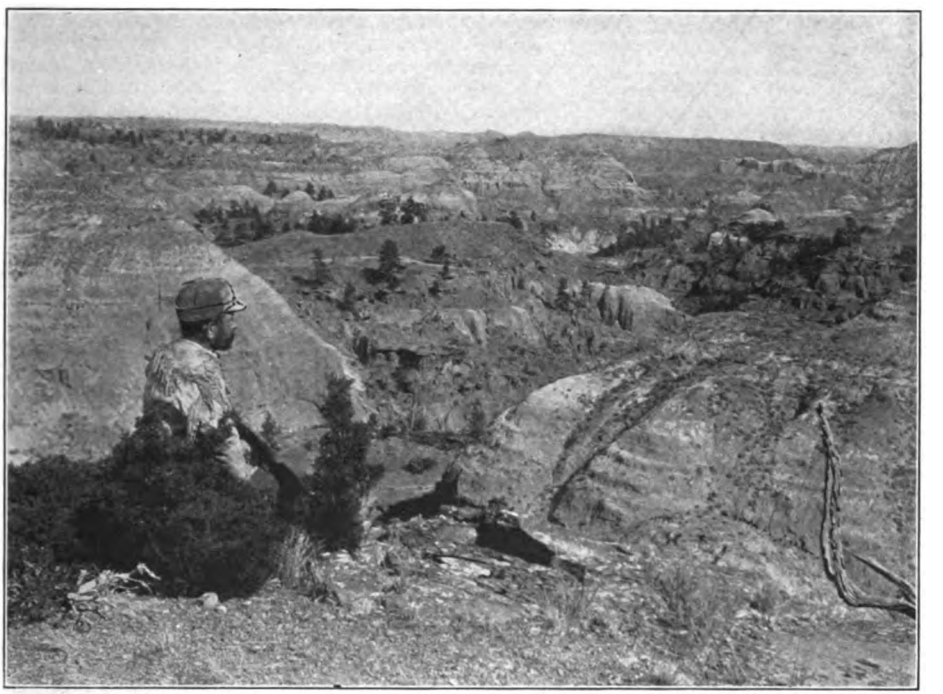
"Yes, indeed. I believe she could die happy if she knew she would be laid out on a bargain counter and buried as a remnant."—Town and Country.

IN THE HELL CREEK BADLANDS.

WILLIAM T. HORNADAY.

We returned from that trip October 26, 1901, and the farther I get from it, the grander it looms; but I would be willing to give up the half of all it was to me, and did for me, if I could make it possible for every man who calls me "friend" to have one just like it.

I am willing to sketch the outline of that trip, not because of the record we made, for we made none, but for the sake of imparting a lesson to others situated as I was last September. It is not a tale of exploit. and blood; far from it.



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THE BADLANDS OF HELL CREEK.
Looking Northeast to the Missouri River from Panorama Point.

Having at last reached a point where my brain had become dead to the world, there was only one thing to do—take a rough-and-tumble hunting trip in the wildest West to be found. We decided that it should be a badlands trip, and one of no common sort.

My old buffalo-hunting comrade, Jim McNaney, had told me that in the Hell creek country—"the worst badlands in all Montana"—there were mule deer in fair numbers, and scenery to burn. There were also a few mountain sheep and antelope; but, happily, both these species are now protected for 10 years, and not to be killed by honest men.

Someway, it always makes me feel about 10 years younger to start West over the Northern Pacific. From Bismarck to Seattle, every foot of the line possesses the charm and romantic interest that attaches to travel in a new world. Had I the space to spare, I could give that road a fervid and sincere free advertisement. Every time I ride up the Yellowstone valley and over the Rockies, it seems to me that my friends need to be told about it all, and sent over the line. At Billings Mrs. Hornaday once camped on the rear platform, and I had to drag her into the car, by main strength, to keep her from freezing.

The head of Hell creek is about 120 miles Northwest of Miles City, and 14 miles from its source it flows into the Missouri. By a strange juxtaposition, Snow creek runs a close parallel, Westward,

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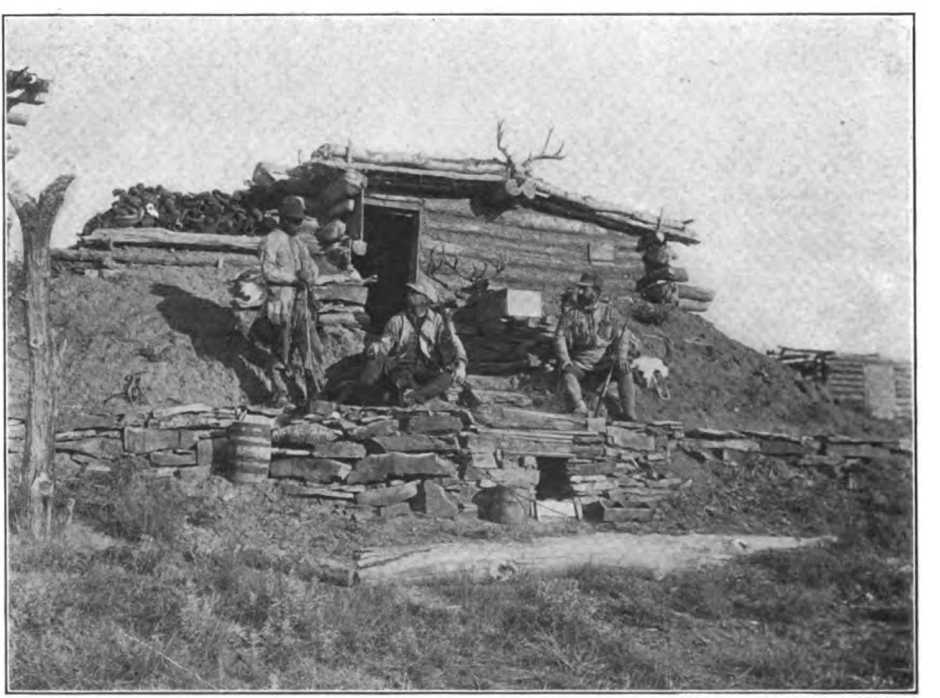
WHERE THE TRAIL ENDS.

and between and around the 2 the badlands are grand beyond compare. Coming up from the South, the divide between Big Dry creek and the Missouri river vallay rolls up smooth, gradual, grassy, and almost without a landmark. When you reach its summit and gaze off toward the North, you see at your feet a 5-mile stretch of smoothly rolling tableland covered with rich grasses a foot high. Then it breaks all to pieces. Down go coulees, gulches and canyons, jump after jump, in rapid succession, until the level mesas are hacked into ragged and awful chasms hundreds of feet deep. Between these stand the sharp, high points of the mesas, like gigantic wedges of land which have split Nature asunder.

On the way up, a messenger came post haste after us, having ridden day and night. Jim, Huffman and I were all married men, and fathers; and it was minutes before any of us had the courage to ask "Calico Charley" which of us was the one. Finally he said:

"It's you, Jim! Maggie's awful bad.



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MAX SIEBER, WOLF HUNTER; HIS DUG-OUT STOREHOUSE AND HIS VISITORS.

There must be an operation this afternoon, shore, or she can't live."

This was at the L U-bar ranch, and 7 o'clock in the morning. Jim mounted Bull Pup, his best horse, took a handful of cigars, a box of matches, and galloped away. At 4 o'clock that afternoon he reached Miles City, 70 miles away, without changing horses. Sorry was no name for what we felt, though not for ourselves. Huffman, the cook and I went on alone, to find Hell creek as best we could, hunt deer and return. I was elected foreman and became assistant horse wrangler, all in one day.

After leaving Jerdon's on the Big Dry, we saw not a human soul *en route*, and having missed the dim trail we were told to follow to the Egad ranch, we presently found ourselves we knew not where. We swung half way around old Smoky butte, the finest landmark in all that region, in a semi-circle, having a radius of 30 miles, and at last reached the top of the Big Dry-Missouri divide. In doubt and wonder, we followed a dim trail 20 miles, knowing that it led toward the badlands; until at last it ended abruptly at a picturesque log cabin standing on a steep hill side 70 feet above—Hell creek! It was the jumping-off place of wagon transport. By sheer good luck we blundered straight into one of the finest spots in all Montana for hunting and picture making. All the ranchmen on the North side could not have piloted us to a finer location than the one found by intuition.

Max Sieber is a "wolfer," and a ranchman besides, and he was nice to us throughout our stay. He is a solitary old bachelor, with no end of interesting history as buffalo hunter, Texas cowboy, and wolfer. His ranch buildings stand above the best spring in all that region, and at the edge of the richest grass lands I ever saw in the West. The high, rolling upland was covered with spear grass and bunch grass nearly knee high, and our horses stuffed themselves with it nightly, until they could hold no more. Here is where the big buffalo herds used to lay on fat in the fall before migrating farther South in the winter.

At "Wolfer's Roost," the grass lands break off into fragments, and from there to the Missouri river and beyond the badlands simply defy description. Huffman's splendid photographs tell their story as words of mine never can; and if ever I gave thanks for the presence of an expert photographer, it was there. The 5 x 8 pictures he made on that trip, 36 in number, are the "finest ever," and had I been compelled to choose on the spot between pictures and game, it would have been pictures by an overwhelming majority.

Every hunter who has not yet hunted the mule deer in really magnificent badlands, has something coming to him from the hand of Fortune. The hunter does not live whose soul would not be thrilled by the sublime spectacle of those miles upon miles of ragged chasms, and the fantastic heights that rise between them. At a hundred points, the level mesa breaks off in sharp, wedge-like headlands, which thrust out into space and drop far down to the canyons where the pines and junipers find shelter for their roots. There are sections of canyon walls so built up and so high placed that they look like ruined castles from the heights of the Rhine.

The artistic effect of the dark, green pines that are sprinkled through the gulches and over the butte sides, is of great value in toning down the rugged aspect of the badlands. Great beds of trailing juniper cling here and there like clumps of dark green moss, to soften the harsh angularity of the rugged ridges. Nature knows the artistic value of contrast quite as well as man.

Four miles Westward from Hell creek, the ragged gulches and angular ridges give way to a series of long, rolling billows of land, smoothly rounded at all points; and the valleys between are well filled with pines and cedars. In contrast with the rougher regions, these are as soothing and restful to the eye as the vistas of an English park. Here we found bunches of mule deer does feeding, and straightway Huffman called the region the Does' Pasture. All these ridges and gulches and canyons terminated in the narrow, level valley of Snow creek, through which the stream wound to and fro, its curiously regular sinuosities marked by a golden chain of young cottonwoods, fast dropping the last half of their autumn leaves.

East of friend Sieber's ranch, the badlands were still different. Over a wide stretch of fairly even country, rose isolated groups of tall buttes, mountains in miniature, a mile or so apart. Among the blasted spur roots of these desolate monuments, the solitary mule deer love to hide and feed on the rank clumps of narrow-leaved mugwort that grow in those sterile situations. At that time all the bucks we found, save one, were in this country of scattered buttes, and all the large bucks were solitary. The bucks and does bunch in November.

It was on our first trip into this region, and only 3 miles from our camp at Sieber's ranch, that I made my score. Huffman was prospecting alone half a mile distant. Sieber and I were together, and just after picking up the front horn of a triceratops (for particulars see Mr. Lucas' "Animals of the Past"), Max said, "If you will come up to the top of this butte with me, I will show you where I missed a fine, big buck last winter."

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THE BIG BUCK AS HE FELL AND THE HUNTER AS HE STOOD.

I thought, "Oh, hang the buck you missed last winter!" but I didn't say it; and solely to please a kind friend, I scrambled up at his heels to the top of a hogback. Along this we walked while it described a capital S, 300 feet long. At its extremity it rose in a bald, round dome of blasted earth, 50 feet higher, and up this Max climbed quite to the top. Raising his hand, he pointed down the farther slope, into a ragged notch, and said, softly, "He was standing right down yonder in—look! look! There's a deer there now! But it's a doe!"

Down he crouched; but I peered over. We had all pledged one another not to shoot a doe, under any circumstances. I plainly saw the high light on a pair of antlers.

"No! It's a buck! I see his horns!"

Bang!

I felt sure he was mine.

He leaped just twice, and then went down to stay. By the time we reached him, he was quite dead. Sieber said afterward to Huffman, "It was as purty a shot as I ever saw made, close behind the shoulder, and a bull's-eye."

The distance was 150 yards, almost exactly the same as that at which Huffman killed his big buck. If anyone wishes to inquire into the truth of this remarkable coincidence, the address in full is M. A. Sieber, Jordan, Dawson county, Montana.

The death of that fine animal in a wild and rugged landscape, and by a single shot, gave me all the blood I cared to shed on that trip, long though it was.

Sieber said it was "a mighty long way to come to kill one buck, saying nothing of the hard work and the expense"; but all the conditions being right—the buck eaten there, and his head mounted here—what more could I ask? It was quite enough.

As a brain fixer and a health giver, that trip was one of the finest I ever had in any country. Huffman and I worked like slaves, ate like hounds, and slept like bears in January. Incidentally and all the time, he was as fine a hunting companion as I ever camped and shot with; and that is putting it strong. In spite of the fact that he set a hot pace for me, and kept me hustling hard from dawn until dark, he was ideal.

We whirled back to Miles City over splendid roads, in 3½ days, our heads clear, our muscles hard as whipcords and our hands so stiff from hard work that for a week they could not shut on anything smaller than a gun barrel. At the L U-bar buttes, at almost the same spot where he had to turn back, we met Jim McNaney galloping out to meet us. The only cloud on the whole trip was the loss of Jim to us, and the loss of the fun to him. Whoever has Jim for a guide and companion on a hunt is in great luck.

THE SIMINOL PIRATES.

CHAS. B. WEMPLE.

On the extreme South of the Sulu archipelago, a short distance off the Northern coast of Borneo, there is a small group of islands known as the Siminols. On the largest of those islands is a little walled city inhabited by Moro pirates. For years they were the terror of those waters. Sometimes they ventured to attack small coasting steamers; but generally they hunted easier prey, robbing Moro fishing boats and the junks of pearl hunters.

During the American occupation of Bongas island, a little West of the Siminol group, frequent complaints were made to the commanding officer of the depredations of these pirates. Each time he would order the Datto of the Siminols to surrender the men accused of robbery on the high sea, and each time the Datto would report that he was unable to capture them. When at last the patience of the commandant had been tried to its limit, he determined to go in person, and see what could be done.

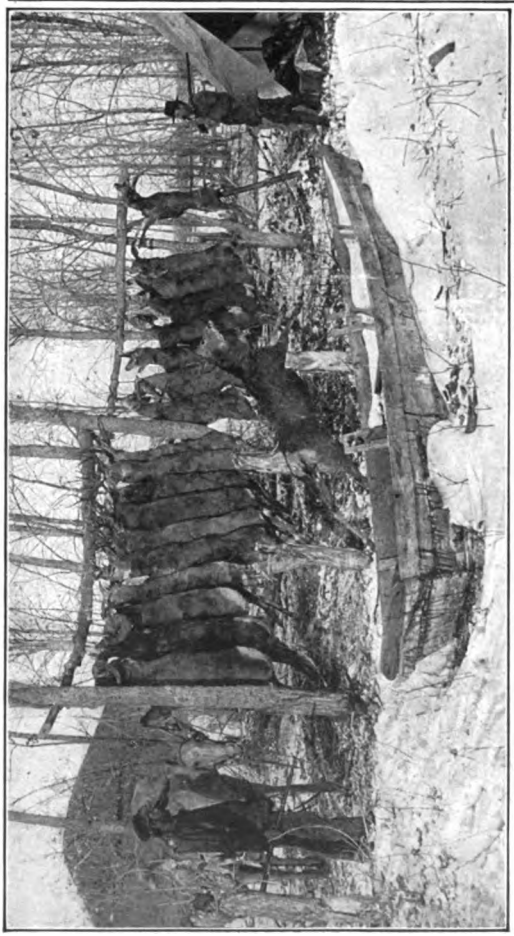
August 4th, 1900, with 25 men and rations for 10 days, he took the launch belonging to the quartermaster's department at Bongas, and started for Bangcubula, the stronghold of the freebooters. The voyage of 27 miles was uneventful save for a little heavy weather and some seasickness. At its destination the little force went ashore and straightway demanded of the Datto of the town the surrender of the accused pirates. That officer, seeing the uselessness of refusal, sent for the men wanted.

While we were waiting for them to come in, there was a sudden thunderous roar from a rude stone-walled fort in the highest part of the town. From the noise and the fact that showers of gravel occasionally flew high over our heads, we surmised we were under fire. We were ordered to deploy as skirmishers, and charge the fort. We did so, advancing under showers of scrap iron, stones and miscellaneous junk fired from old muzzle loading cannon. Not a shot was fired on our part, and no one was hurt. When we reached the fort, we found nothing but the smoking relics of primitive warfare; the braves had fled.

The Datto, however, rounded up the men we wanted, as he could have done at any time had he so chosen, and turned them over to us. We took our captives back to Bongas. They were tried by court martial and sentenced to 2 years imprisonment at Jolo. In addition they were fined $700, Mexican, each, and all their boats, guns, etc., were seized. Two of their sloops, renamed and slightly remodeled, are now used as dispatch boats between Jolo, Bongas and Siassi.

Made with Bausch & Lomb Zeiss Anastigmat Lens and Ray Filter

PETRIFIED BILLOWS OF SOHTH DAKOTA BADLANDS.



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THE GRUNT OF THE GAME HOG.

WILLIAM J. LAMPTON.

Behold Me,
I am the Game Hog;
But just the same,
I am not as game
As I am hog.
I couldn't well be,
Because, you see,
It is my will
To kill
And kill
And kill
For sake of the killing only
To slaughter for slaughter's sake,
To ransack the field,
The forest and river and lake.
No bird in the air,
No fish in the sea,
No animal on earth
Is safe from Me.
I pile the plain
With what I have slain,
The inland woods and the shore;
And the more I shoot,
The more I root
For more and more and more.
The sportsman kills
As a gentleman should,
And when he has met his need,
He finds no fun
In using his gun
To gratify a greed.
But Me?
Well, you see,
I'm a hog, I am,

And I don't givadam
How many I get,
And I never let
A thing get away
From my gun-play.
What is the game for,
But to kill?
What are the birds for,
But to fill
My insatiate bag;
And I never lag
In doing the whole stunt
When I go out to hunt.
And when I have killed
All there is in sight,
I pile them up
To their loftiest height,
And take my place
Beside the pile
To have my photo taken.
My smile,
Just then, is something
You ought to see
To make you pleased
With my work and Me.
By gosh, it takes
A photograph
To show just how
I get in my gaff
On the helpless things
I slaughter for fun
With any old thing
You can call a gun.
Oh say,
Don't I look gay,
Done up in that slaughter-pen way?
I'm a Game Hog with a greedy grab,
And quite well known to fame,
I haven't got bristles on my back yet,
But I get there just the same.
See?
That's Me.
Gee whiz,
What a hog of hogs
The Game Hog is.

A FREAK DEER HEAD.

I have just returned from my first deer hunt of the season with my 3 deer, and I have earned them 3 times over. It is no small task to travel miles to jump a deer, and then pack the carcass 3 or 4 miles to camp, over windfalls, blowdowns, up hill

and down, through muskeags, etc. However hard was the work we thoroughly enjoyed the outing, and are looking forward to the time when we shall meet again on the same ground in Northern Minnesota.

I found the raven, moose bird, ruffed grouse, 3-toed woodpecker, pileated woodpecker, hairy and downy woodpecker, red-bellied nuthatch, hawk-owl, horned owl and chickadee common in Ithaca county.

I enclose picture of deer head I mounted last season. You will notice that the branches cross by about 1½ inches in the front, and there is an extra parallel lower branch. I have had many heads, but this is the most remarkable one of all.

H. W. Howling,
Minneapolis, Minn.

AMATEUR PHOTO BY D. W. HALLAM.

WILD RICE GROWN BY CHAS. GILCHRIST, PORT HOPE, ONTARIO.

THE BUGLER FROM THE PEAKS.

RICHARD BURTON.

What is this cry that sudden seems to shake
The keen, still mountain ether wide awake,
Until the vast and candid snows of night
Sound vibrantly on every doming height?
Hark, how it swells! The very stars do hear!
This upper fastness reads the message clear;
Her ancient language Mother Nature speaks:
The bull elk bugles midst the topmost peaks!

—The Criterion.

HUNTING FROM THE GOFF CAMPS.

WARFIELD RYLEY.

I went to Colorado Springs for health. Having found it, I decided to go after big game, and because Goff was called the most successful hunter in the State I put my case in his hands.

I left the Springs September 1, and after a day of traveling through the grandest scenery I had ever beheld I reached Rifle, whence I took the stage for Meeker.

Next morning we—there were 3 of us—started for Goff's deer camp, 25 miles distant and 6 miles Southwest of Sleepy Cat mountain. We got there in time for dinner and had our first taste of venison. The afternoon we spent getting acquainted with Goff and inspecting his camp. He is a great hunter and a good fellow, spending most of his time in the hills, either with tourists or alone. The camp was composed of a large tent and several smaller ones, ideally situated in a clump of pines. It was afterward abandoned because of forest fires.

At 5 p. m. I decided to look up a buck, so a guide saddled horses and we set out. We did not go more than 2 miles from camp, but in the course of the circuit saw 13 deer, 4 of which were bucks. I shot at 3 of those but missed every time. I suppose I had buck fever. It took me 3 days to recover entirely, but when I did I found it easy to get game. Deer are more abundant there than rabbits in Missouri. I was with Goff 2 months, but after killing one deer I confined myself to grouse, which abounded. I loafed a good deal, too, until the time came to hunt with dogs.

A number of sportsmen visited the camp between September 1 and October 15, and with one exception each carried out a fine pair of antlers.

On October 11 came a party of 5, 2 from Kansas City, the others from Colorado Springs. They came to hunt with the dogs, but, arriving a few days before the deer season closed, they went for their share of venison. They jumped 4 bucks together and got the whole band, after which they killed no more deer.

A mile from camp was a deer crossing. After the first snow, when they began to leave for lower levels, great numbers passed there. I believe fully 5,000 crossed at that place.

During September, because the drought preventing the use of dogs in bear hunting, Goff kept traps set. On the 23d he came into camp and announced that he had a bear fast in one of his traps. All was excitement at once. I had been promised the first bear. Saddling hurriedly we went to the scene of action, taking the dogs for exercise and to give them a square meal after the skinning. Our captive proved a grizzly. He was fast in a 5 pound trap, to which was chained a 5 inch log 5 feet long.

Football is rough sport, but it isn't a circumstance to what we saw there. The dogs had had experience, and attacked cautiously from the rear. One feinted from the front to engage the enemy's attention, while the others made a rush. Bruin would swat with right and left swings, but his agile foes always side-stepped in time. At last Turk, the bloodhound, ventured a little too close and was nabbed by the neck; and although he had a mouthful of the bear's forehead in his jaws he would have fared badly had not the others made a gallant diversion in his favor.

The attack was so fierce that old Ephraim was compelled to drop Turk and turn on his more troublesome foes. It was some time before I found a chance to shoot without danger of killing a dog or 2, but at last it came and I planted a shot from the 30-40 Winchester, which fixed the bear. The skin is a fine one, being almost white across the shoulders.

We reset the trap, and 3 days afterward we found a fine cinnamon in it. We did not take the dogs then; just went out and shot him.

October 16 we had a deep snow, and early the 17th we set out with the dogs. Of these, 5 are foxhounds, for trailing. 2 are Siberian bloodhounds, and 3 are a cross between bull and shepherd. These last do the fighting.

It was a good day for tracking, and we soon put a lion up a tree. He was shot at once and fell so badly wounded that he put up a very weak fight. Later in the day we got a lynx. The next day we added another lynx to our list. These animals are difficult game. They live high in the mountains and leave a trail so nearly scentless as to be extremely hard to follow, except through snow. When the snow begins falling it is soon so deep as to drive the hunter to lower altitudes.

On the 19th it snowed all day. The next day trailing was fine, but we struck nothing until nearly dark, when we put up a lion on a hill. When we reached him we could only make out a dark spot in the top of the tree. Rifle sights were invisible, so we just pointed the barrels of 2 of our guns at him and fired. The lion snarled and climbed higher. A second round brought him down. The dogs at once bounced him and we had a

lively shindy for a spell, but it was soon over. He was not skinned until the next morning.

On the 21st one of the guides led a Kansas City man in another direction. They were gone 2 days, and came in bringing the pelts of a lion and a bobcat. This made a record in 6 days of 3 lions, 2 lynxes and one bobcat.

On the 23d all visitors left but me, and as I intended going with Goff to his bear and lion camp, we moved the outfit to his ranch, to allow the horses and dogs to rest before starting for the lower country. We were joined by some new sportsmen, and November 4 we set out with 2 wagons loaded with duffle, and 6 tourists on horseback.

By 2 p. m. of the 24th we reached Rangely, where we found a band of Utes, who had been hunting but had been turned back to their reservation by the warden. They had stopped at Rangely for a few horse races. We watched the races with interest. The first was between a horse belonging to Moc Face and another was the property of a Mexican.

Each horse wore a bridle and a rope tied about his body back of the shoulders. The Indian rider was the best I ever saw. The course was over a long, straight road. The jockeying done at starting would have driven an Eastern jockey crazy. While trying to get a start the Indians ran about vociferating, "Bet 'em on Injun hoss, all same." The riders finally got off, and the way they rode was the sight of a lifetime. The Indian came in first, hailed by the shouts of his people. The Mexicans were silent. Two other races followed, the Indian winning both. Then the tribe started for the reservation, but persisted in wondering why the white man could kill deer 6 weeks and the Injun only 6 days.

The red men were curious to know what we should do with the dogs. When told that we should hunt bears and lions, a pompous old fellow remarked, "Maybe so you ketch 'em; maybe so you no ketch 'em." They are so superstitious about bears that they will not hunt them, but, meeting one, will try to kill it. The next morning we left Rangely, and in the evening made camp on West fork of Douglas creek, 30 miles from Rangely. Everything was dry; dust 2 inches deep, which was discouraging to hunters. The dogs became hungry for a chase, and by the second day's hunting all but old Jim started off on a wolf's track. Goff followed to call them off. A gray wolf can do a whole lot of damage to a pack of dogs. He runs on until the pack strings out. Then he turns and finishes the leader; then runs on until he can serve the second, and then the others the same way. After 3 hours Goff got the dogs off the trail.

Another morning we found a lion track. The dogs worked on that trail 6½ hours to put the lion up. He had traveled over bare rocks, and the scent a lion leaves in such a place is so faint as to be nearly untraceable.

While we were on Douglas no rain fell, yet we caught 6 lions and one bobcat. I think we went down too late for bears. We saw no fresh tracks while we were there, but cattlemen say there are many bears.

The White river country is a paradise for hunters. Goff wanted me to go to the ranch and hunt with him, but I credited myself with enough sport for one year and declined.

A MINNESOTA MUSKALONGE.

O. L. THOMAS

It may interest some of our sportsmen friends to know that there is still a place where muskalonge, the great "Wolf of the Waters," abound, and are still untutored to the point where they avoid the lure.

July 28, last, my brother Clark and I left our home at State Line, Wisconsin, with a determination to find some good muskalonge fishing. On our arrival at Deer River, Minn, we procured a birch-bark canoe and camping outfit and at once began our tour of exploration up Deer river toward the lake-dotted region of Itasca county. We scrutinized most of the head waters of the Mississippi river, all of which have muskalonge in them, and passed over the divide into the waters of the Red river, through the Cass Lake Indian Reservation, the Winnibigoshish Reservation, the Chippewa and Leech Lake Reservations. We found many beautiful lakes, with water clear as crystal. Most of them, the Red river waters as well as the Mississippi, are alive with pickerel and pike. In some of the lakes we had the finest black bass fishing I ever saw, the fish being all of the green variety. In Turtle lake, a beautiful sheet of water,

5 miles long, we could have loaded our canoe any day with bass and we used no bait but a spoon. Those were the most beautiful green bass I ever saw. They bore no relation to the razor-back variety, but were extremely plump. They averaged 4 pounds, and several that we caught weighed 6 pounds.

We spent 2 days there, but having no use for more than 2 or 3 fish a day except to turn them back into the water, it soon grew monotonous. It was too easy; besides, they were not muskalonge; so we went on, passing scores of beautiful lakes and much inspiring scenery.

Many moose crossed our path, all about 2 minutes ahead of us. The nearest we came to seeing one was eating a piece of his steak at a friendly homesteader's shack on the bank of a stream. We saw many deer, but did them no more harm than to frighten them from among the lily pads, their choicest food, by our war-whoops, rejoicing to see them prance away, switching their tails in farewell as they scudded into the bushes. There, knowing they were secure, they would snort and, in apparent mockery, give us the laugh. On one occasion, a huge black bear stopped on the bank long enough to give us an inquisitive glance. Luckily for him we had nothing but a shot gun, with light shot.

As the days and weeks passed, our tour seemed too uneventful. We had only caught 2 muskalonge and those in the Mississippi river. Our 60 days passed and we pulled up at Walker, a small town on the shore of Leech lake, for a day's rest. When we expressed our discouragement to the man at the Walker Boat Livery, he said,

"Why don't you go down on the Elbow Lake chain and catch some sand trout? It is great sport."

"Sand trout" was a new name to us, so we asked a description, and finally concluded they must be muskalonge. At any rate, we wished to see what it was that "breaks up everyone's tackle and in some instances weighs 40 or 50 pounds."

We started by train early the next morning, October 2, for Dorset, launched our canoe in Elbow lake about 9 o'clock and started trolling. In less than 30 minutes there came a vicious tug at our line and the light steel rod bent double. Both of us being anxious to set eyes on a "sand trout" for the first time, we turned our gaze in the direction of the hook. Our line was at a high tension and rising gently toward the surface, when an immense fish vaulted out of the water his full length, gnashing his teeth and shaking his ponderous jaws with a mighty effort to rid himself of the hook. Alas, he was successful! The hook fell into the water several feet to the left. This conduct we knew only too well; and as he had exposed his silvery side to our full gaze and had dived back into the water with an awful splash, we both shouted in one voice,

"A muskalonge!"

Then followed great sport. This experience was repeated at surprisingly short intervals till, at one o'clock, we landed for lunch with one 10-pounder; but we had thrown 7 back into the water unhurt, only keeping them long enough to gently take the hook from their mouths. The largest one weighed 25½ pounds.

After lunch we started to investigate the chain, which consists of 13 lakes. All are clear as crystal, with sand bottoms and many beautiful sand beaches, and surrounded by lofty, rolling hills, covered with a massive growth of pines.

It took 2½ days to go through the chain. During that time we simply dragged our spoon behind the canoe and we caught in all 29 muskalonge, the 25½ pounder being the largest. Of those we kept only 2, which we ate, releasing the others.

About 3 o'clock one afternoon we passed a boat with 2 occupants fishing and to our inquiry regarding their luck they said,

"They are not biting much to-day, we have only caught 10 so far."

Those lakes possess many peculiarities. There are no fish in their waters except muskalonge and perch, notwithstanding the fact that the chain is surrounded by many lakes full of bass, pike and pickerel. Another peculiarity, to me the greatest, is that the chain is all connected and flows into Elbow lake, which has no visible outlet.

I know some of my statements here will meet with doubt, criticism and be called "fishy"; but I only ask that those who doubt will visit those lakes. A few days of this royal sport will convince them of the truth of my story; and if it does not cure the most ardent angler of any case of muskalonge fever, at least temporarily, I will report him at once to RECREATION where he will get what he deserves.

Barber—"Your hair will be gray if it keeps on."

Scantylocks—"Well, I hope it will keep on."—Baltimore World.

HE STACKED THE CARDS ON THEM.

DR. WILLIAM A. MANN.

During the summer of '99, 2 of my nephews and myself were spending our vacation at Spring Lake, Mich., and were putting in time trying to lure the numerous fish from their places of retirement, but without much success. However, we had caught a few, even if the big ones were known by those familiar household names of dog and cat; and that was more than 2 young men who were there from Chicago could say. They had fished and fished and hadn't even caught a sucker; but they caught several of them later. Bradley Anderson was the name of one of those gentlemen, though we called him Bradley Martin.

Brad was tall and lean and awkward, also extremely bashful; but he had a little of the old boy in him and was always playing jokes on his companion, John Marshall, who was good humored and accepted the position of being made fun of. Sometimes he included more of us than Marshall.

One afternoon it had sprinkled a little, so we did not go out in boats to fish, but confined ourselves to still-fishing from the dock. George and Willie, my 2 nephews, and I caught a white, or silver, bass, besides some crappies and blue gills; and we decided to try fishing after dark, with a lantern hung on the side of the dock, just over the water.

After supper, by urging, we got Brad and Marshall to join us. We caught a few crappies at first. Then Brad got a 20 foot reed casting pole and declared he was going to catch more fish than anybody else, or even than all of us put together. A yacht was tied to the dock and Brad climbed out on her and sat astride the boom, remarking, "I am going to charm those fish. My toes are crossed, my legs are crossed, my arms are crossed, my fingers are crossed, and now I am going to cross my eyes. When I get a bite, look out there on the dock, for I will fling that fish half way up to the house."

After a few minutes of silence, Brad gave a war whoop, uncrossed himself, and grabbed his pole, which had been stuck under his arm.

"I've got him! Look out there!"

There was a gleam of silver in the air and a dull sound back of us proved his charms had worked.

"Here, Gray, take him off and bait up."

Gray was another one of the boys and was not fishing, but was around offering us all a little advice. Gray did as requested, we supposed, but it was so dark we could not tell what he did. We had no lantern but the one down by the water, and we were glad to keep that away from us, for mosquitoes seem to like to dine by a light. As Brad was getting ready for more charming, several of the small boys and one or 2 larger ones moved over in his district to try their luck, but luck was against them, and in a few moments Brad had another fish, which was landed in the same vigorous way as the first.

To make a long story short, Brad, by numerous changes in charms and additional crosses, counted his fish up to 12 and then decided he would quit, as 13 was an unlucky number. Gray was told to gather up the fish and take them to the cook, so they could be cleaned and cooked for breakfast.

During the whole evening the rest of us, 4 or 5, had caught only 2 small crappies and one silver bass. We felt rather sore that Brad had outdone us so, in spite of the fact that some of the others had fished in his hole also.

A little later, we quit and began to pick up our fish. George suddenly said, "Look! Here is a fish with its head mashed."

"Yes," said Brad, "I stepped on that one of yours when it was lying on the dock."

His explanation was accepted, and we went to the house and gave our fish in to be cleaned. We had fish for breakfast, but we missed several of our largest ones, and wondered where they were. Brad also had a large fish served, but it was untasted.

It came out later that Brad had taken out one of our fish, had hooked it well, had then thrown it in the lake and pulled it out as a catch, repeating the operation 11 times; but as the head became smashed, he had landed it more gently.

As a practical joker, Brad was a success, even if he could not catch fish. When you are in Chicago step into Brad's office and ask him to show you his position of crosses when he wants to catch fish.

"Papa, what's the difference between an amateur and a professional politician?"
"Oh, 2,000 to 20,000 a year."—Life.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman.

GAME WARDEN ROASTS THE SIDE HUNTERS.

RECREATION has an editorial article in a recent number reflecting severely on certain sportsmen who were prominent in the Charlemont and Conway side hunts. The magazine calls these men hard names,and compares game hunting where the gunners line up on different sides, to prize fights. It says, "It is strange that the decent sportsmen of Massachusetts and one or 2 other New England States in which these barbarous slaughtering matches are still carried on, do not secure the passage of laws to prohibit them."

This Charlemont man says he is going to have some fun with the editor of RECREATION.—Greenfield, Mass., Gazette and Courier.

No, I did not reflect on any sportsmen, for there were none in the side hunt. Sportsmen never engage in these brutal pastimes.

I did criticise the game butchers who participated in that hunt, but did not give them half the roasting they deserve, because I could not spare space enough; but whenever that Charlemont butcher gets ready to have fun with me, I shall be glad to give him all he wants of it.

EDITOR.

The following letter, which appeared in a recent issue of the Greenfield, Mass., Gazette and Courier, shows what true sportsmen think of the Charlemont and Conway gang:

The article entitled "A Herd of Side Hunters," in December RECREATION, and your reference to it in the last issue of the Gazette and Courier, are interesting. RECREATION calls the Charlemont and Conway side hunters "game hogs" and you call them "sportsmen." While the title applied to these hunters by RECREATION may sound harsh, these side hunts can not be too strongly condemned. The hunters taking part in them are not sportsmen. The explanation of the Charlemont hunter who says, "The result of these side hunts is that less game is destroyed than would otherwise be the case, as when all the hunters start out they soon frighten the game into inaccessible places," offers a unique method of protecting game. Choose sides, all take guns and start for the woods, to protect the game. The scores something over 70,000 on one side alone, indicate, slaughter rather than fright or protection. If the object of these men was to protect the grey squirrels, as the Charlemont hunter says, by killing red squirrels, which he says prey on the greys, why did they not have reds count more than greys, and thus induce the hunters to shoot reds instead of greys? On the contrary, they had reds and chipmunks count low, while grey squirrels and ruffed grouse counted high. The result was a slaughtering match of which the participants should be ashamed. The real sportsmen of the State have worked long and earnestly to protect the game that is killed on these side hunts. Sportsmen stock our streams with trout, put out English and Chinese pheasants, Belgian hares, etc., for the good of the public, and it must be discouraging to them to see the game they try so hard to protect killed by side hunters just because it counts so much a head.

E. C. Hall,
Deputy Game Warden, Buckland, Mass.

Further condemnation of the Charlemont and Conway side hunters is expressed in the following letter which is reprinted from a recent issue of the Greenfield, Mass., Gazette and Courier:

In your last issue I noticed an article on the Charlemont and Conway game hunts, saying that G. O. Shields, editor of RECREATION, called the men prominent in this affair hard names. In my opinion, and in that of hundreds of real sportsmen, the condemnation was just, provided the reports of these side hunts are true. It has been reported on good authority that in these hunts a quantity of game was killed before the counting-up day and allowed to rot. Another feature of the hunts has been the stealing of game from one party by another.

In the article referred to in your paper, a Charlemont man tries to defend these men by saying they frighten the game and drive it to remote and inaccessible places. The chances are that when 40 or 50 men go out in the woods, one party will scare the game right where another party is waiting for it, and wholesale slaughter is the result.

Your correspondent says the men go out for a few days and get all the shooting they want for the season. On the contrary, many go out during these hunts who would never go any other time. All the crack shots are out vieing with one another to see who can bring in the biggest bag. Then the large parties literally hem in the game, making it next to impossible for it to escape. He further defends his friends by saying they kill the red squirrels, which prey on the grey ones, and that the hunters thereby do the grey squirrels a kindness. The lameness of this defense is apparent to any sportsman. While it is not denied that the red squirrels harass the grey ones, it is well known hat if the greys are given a chance they get along all right, even though they do lead a somewhat strenuous life.

Mr. Shields, through his magazine, RECREATION, is making a big fight against those whom he rightly calls "game hogs" and "fish hogs." He is doing a grand work in arousing true sporstmen to the fact that our game laws are in many cases inadequate and poorly enforced. In several States his efforts have been instrumental in having wise protective game laws passed, and their provisions better enforced. Although he roasts the offenders who come to his notice severely, he is no respecter of persons. It is all the same whether it is a half-breed trapper or a sheriff, or a superior court judge who is on the rack. In this work he has the support and good wishes of thousands of sportsmen who are clean, who want restrictive game laws and want them enforced.

Game hunts conducted as they are in most cases are wanton and barbarous slaughter. Efforts are being made to make them illegal and punishable by a heavy fine in this and the few other States where they are yet countenanced.

Your Charlemont man says he intends to have some fun with Mr. Shields. Just what fun he will get out of posing as an injured member of a party of side hunters is difficult to see.

Sportsman.

MOUNTAIN LIONS IN MEXICO.

El Paso, Texas.

Editor RECREATION:

Last season was an excellent one for El Paso sportsmen. As you know, we are within reach of the famous Sierra Madre game fields along the line of the Rio Grande and Sierra Madre Railroad, and General Manager Ramsey, together with his polite and obliging traffic manager, Mr. Halmon, see to it that their line extends to sportsmen going into Mexico every courtesy possible.

The first day of last October, 4 of us

boarded the train here with our rifles and other paraphernalia, and at Casos Grandes, the present terminus of the railroad, we secured saddle ponies, 4 pack mules, a guide and a Mexican servant. After 4 days' travel we camped on the Govi-land, a headwater stream of the Yaqui River, amid scenery rivalling anything on the continent. There we found game in abundance: deer, turkeys, pigeons, squirrels and parrots; while the deep black pools swarmed with trout. We followed down the stream, which runs, or rather rushes and roars, over a rocky bed at the bottom of a canyon 1,000 feet deep, and finally made camp at a beautiful spot where we hunted, fished, bathed and enjoyed ourselves generally; a good 100 miles from any human habitation, we, perhaps, being the first white men who ever visited that section.

Lion tracks were thick, and once, when riding down the canyon, 4 big fellows climbed up on a bluff and looked at us. One of the boys got in a shot and wounded a lion, but, as we had no dogs, he got away. The next day I shot 4 turkeys out of a big drove and laying down my rifle, I took the birds to a creek to dress them. Suddenly I looked up, and there stood a big lion sniffing the blood, and between me and my rifle. I instantly remembered that I had left my 6-shooter in camp. For about half a minute we eyed each other, while I thought what a pose for a camera! Then his lionine majesty showed signs of restlessness. His magnificent tail undulated from side to side, and I thought I should have to try him with my knife; but when I shied a rock at him, he trotted leisurely away and I saw him no more. I carried my 6-shooter thereafter.

We explored and photographed several cliff house ruins, from which we secured a number of relics. Finally we decided that the game was too gentle to afford much sport, and after spending 4 days in that spot, we packed up and started on the return journey. We only shot bucks, and on the return trip we "passed them all up" as well as several droves of turkeys that we saw; but one of the boys could not resist the temptation to amuse himself by shying small pebbles at a bunch. Having only rifles, we did not shoot any pigeons or squirrels, but I shot a poll parrot with my 6-shooter.

Near one camp there was evidence of recent Indian occupation and we moved out, much to the disgust of the guide, who, being an old Indian fighter, declared we could whip 100. A small band of renegade Apaches have their rendezvous in an accessible canyon not far from where we were, and about a year ago they raided a Mormon settlement. No white man has ever been in the canyon, which is 25 miles long and 3 to 10 wide, with walls 3,000 feet high, rendering it inaccessible to all except Indians who know a secret trail. A young Temache Indian declares he knows the trail, and says he will guide us into it, and it is my intention to explore the place next October, when I expect to find archeological treasures galore, to say nothing of plenty of game and, perhaps, a few Indians for variety. All that section, for hundreds of miles, is absolutely uninhabited, and is extremely broken and picturesque. The canyons are deep, and through each flows a stream of pure water. The mountains are flat topped and covered with pine and a luxuriant crop of grass, thus forming the finest country for camping to be found anywhere; a place where man can commune with nature to his heart's content, and forget that there is such a thing as a city with its eternal rush for money.

I. J. Bush, M.D.

HUNTING FRANCOLINS IN BURMA.

Yenangyanng, Upper Burma, India.

Editor RECREATION:

It was a damp morning and the clouds were banking in the East, whence the rain at that time of the year came. As there was no prospect of the day being fine enough for outdoor work, I decided to take my old 12-bore and try to get a shot at the francolins.

The variety that abounds here, C. F., is found only within the dry zone in Burma, and never West of the Irrawaddy river, except near its bank. The Southern limit of the distribution of this bird is well defined. It frequents dry, open forest and scrub jungle, and seems to prefer hilly or undulating ground to the plains. Their cheery call of "whack, whack, whacker," could be heard from every hillock, and it was not long before I found birds calling close to me. Hitherto, I had met these birds in the forest reserves where I was engaged in surveying, and had them beaten out; but this time I was unaccompanied by even a native attendant.

Thinking I could get him to rise, I ran up to the bush in which I heard him call, but though I jumped on it, I could not find him. Recalling the fact that I had come up hill toward him, and thinking that he had spied me, I determined to get up behind the next bird and come down on him. Whick, whack, whacker; there was a call just on my right, and behind the crest of the hillock. Carefully climbing up to the top, I gained the summit and whirr-r went a black and brown body curving away from me, falling head first at 30 yards to my right barrel.

I picked him up, tied him to my belt and went on.

The next time, I noticed a brown bird drop from a tree stump behind which the francolin was calling, and not for a moment thinking that my bird, as I fondly styled him in anticipation, had spied me first, I advanced, only to find a deserted nest. The little beggar was calling on the stump, and had been watching me all the time, and dropping quietly to the ground, had run down into the ravine below, where, with his lady love, he probably chuckled over the way he had done the clumsy biped.

During the morning many blue rock pigeons flew by me, but I let them pass, as I was after the shy little francolin.

I got only one bird, but I gained experience, and never again will I walk up to a bush whence the merry call proceeds without satisfying myself that the cunning little francolin does not notice my approach until it is too late to hide. Then its only alternative is to get up with the whir-r that is as music to a sportsman's ear.

H. T. Davies.

KEEP AN EYE ON BROWN.

Hollidaysburg, Pa.

Editor RECREATION:

Yours received, enclosing a letter from A. O. Brown, of Frugality, Pa., in which he denies having violated the game laws. I have no positive proof as to his guilt, but that he is a gross violator of those laws I have not the least doubt. My attention has so often been called to his acts of lawlessness within the past year that I decided to write to you, so you could investigate the matter.

A friend, who resides in Frugality, and on whose word I can always rely, first told me about Brown, and urged me to report him to you. My friend boards at Brown's hotel, and says Brown repeatedly served his guests with game, especially grouse, both in the close and open season last year; that he often shot grouse in the nesting season, and openly boasted of killing more than 10 birds in one day. I do not give my friend's name, lest it should result in his having to leave Brown's hotel, which is the only one in the town. A Hollidaysburg sportsman spent 2 weeks last fall hunting around Frugality. When he returned he told me Brown was the worst game butcher in Cambria county, and that his lawlessness was the talk of the town in which he lived.

A short time after writing you about Mr. Brown I received a reply, saying you had written him. My friend came here a few days after on a short visit and said Brown suddenly stopped hunting and serving game to his guests, and appeared much worried about something. You wrote Brown last fall, and it seems queer that he should answer at this late date. Perhaps you wrote again. The tone of his letter does not seem to show any indignation on his part, and I think if he was falsely accused he would have answered with more spirit and promptness. I think it would be well to have the L. A. S. warden of Cambria county do a little detective work at Frugality. It would no doubt show Brown up in his true light, and others also.

In that county, especially in the vicinity of Frugality, little respect is shown for the game laws. It is a rough, coal-mining country, and the majority of the people are foreigners, with no respect for any laws. Sunday is the great hunting day there. Then the woods swarm with pot hunters, who seek to kill everything in sight, from a bear to the smallest song bird. Few of the people know anything about game laws, and they hunt any time they wish, even in the summer, when many grouse are shot on the nest. The warden of that county has plenty of work before him, and it is to be hoped he will get down to it in earnest.

Last fall Mr. William Gardener and I, both members of the League, tried to have the constables of this (Blair) county urged to do their duty, under a new law which requires them to act as fire and game wardens. They have since been instructed by the judge of the county to attend to those duties.

H. P. D.

It is true Brown did not answer my first letter, and I jacked him up again, as H. P. D. suggests. One can read between the lines of his statement to this effect: "I am not guilty, but will never do it again if you let me off this time."—EDITOR.

MORE OREGON HOGS.

I hand you herewith a clipping from the *Rustler*, of Lakeview, Ore., by which you see we have some swine in Oregon. The good work of RECREATION is fast changing the sentiment of our people, but here are some rooters that deserve branding.

A. V. Oliver, La Grande, Ore.

A camping party consisting of Mr. and Mrs. W. D. Woodcock, their son, Jack, and daughters, Maud and Jessie, Fred Ahlstrom and Andrew Hammersley, returned from Honey Creek Saturday. They report having had a splendid time. The men claimed to have bagged 3 deer and 18 antelope. Mr. Woodcock made the largest kill, having 3 deer and 8 antelope to his credit, while Fred Ahlstrom and Jack Woodcock got one antelope each and Andy Hammersley 8. So far this has been the most successful camping party yet in the way of bagging game and fish.

I wrote Woodcock and Hammersley for their version of the story, and the latter answers as follows:

Your letter of the 7th inquiring as to my having killed 8 antelope is at hand. I anticipate you have a roast in

store for me, but being like the father of his country I must plead guilty. When one has been housed up in a store for a year and then gets out for a week's hunt, goes 50 miles out on the desert, drinks alkali water, etc., he wants to bring enough game in to treat his friends. Antelope were plentiful out there, and I could not resist the temptation of killing a few to bring to town, knowing it would be a year or more before I would get another chance. Doubtless when you read this you will say it is fortunate that men like me don't get out often. I have read RECREATION many times and have always thought your efforts to stop the wholesale slaughter of game were laudable, but I am, I fear, a little like the parents who always think other people's children are bad.

Now be charitable with me and do not give it to me too hard.

A. H. Hammersley, Lakeview Ore.

ANSWER.

You might with the same propriety say: "I am fond of horse stealing, but have been in jail a year past and have had no chance to indulge in my favorite pastime. Last week I got out. I went on the plains and found a big herd of horses. I had to sleep on the ground and drink alkali water. Besides, I knew I should not get another chance to steal a horse for at least a year, and as these were not branded I ran off enough for all my pals. I hope the sheriff won't get me, or that if he does the judge will be lenient with me."

Would you not consider that a mighty flimsy plea for a man to put up? Well, it would be just as reasonable and just as manly as yours. In my judgment a real, avowed horse thief is a gentleman as compared with you.

Woodcock has not replied to my inquiry, and so I infer he is guilty, as stated in the clipping. If so, he is disgracing one of our noblest game birds by using its name. He should change his cognomen to Skunk. —EDITOR.

WITH THE SHORE BIRDS.

Taunton, Mass.

Editor RECREATION:

That racket meant that it was 3:30 A. M. Fifteen minutes later I appeared at the door ready for a morning's shooting. The stars were shining through a few scudding clouds and the moon was just setting.

Arriving at the blind I put out the decoys and settled myself to wait for daylight. Finally I was able to discern the sand dunes looming up across the pond. "Ple—wheu—wa!" I heard the note of the golden plover, and crouching down I tried to call them in. After a minute or 2 I saw 3 small objects approaching. As they hovered over the decoys I fired and knocked down 2; the third left the marsh in the direction of the sand dunes. Scarcely had I picked up my birds when I heard a big yellowleg calling in the distance, and a flock of 9 came in answer to my call. I killed one with the right barrel and 2 with the left. After repeated calling I coaxed 4 more back within gunshot, killing 2. A few minutes later, with a swish of wings, 5 black ducks flew past, and as they were protected by the law at that season I let them go. Then noticing in a flock of peep a bird somewhat larger than the rest, and being something of a naturalist, I shot it. It proved a good specimen of the rare Baird's sandpiper, and the third that has been taken in this State. It now graces the collection of a friend. So the morning passed with an occasional shot at a big yellowleg or plover, until the sun rose high and the flight ceased. Then, with great reluctance, I gathered in my decoys. No sooner had I got them all in my basket than I heard the note of a curlew, and, looking up, saw a large flock flying over out of gun shot. That was hard, since they were the only curlew I saw that day.

On my way across the fields I shot an upland plover, which alighted in a bunch of grass in front of me. Farther on I flushed a covey of quails, which scattered in the brush, and although I could not shoot them at that season I wished I had my old dog along just to see him work.

Then, with that appetite which is the especial reward of the early riser, I presented myself at the house. W. R. D.

OUR DUCK.

One day last spring my chum, Pete, and I went duck shooting. I carried a double barrel, loaded with No. 4's. Pete's gun was charged with 7's.

Passing a puddle in a cornfield, we flushed 4 mallards out of range. Later, as we were returning past the same puddle, 2 more flew out, and we marked them down ¼ of a mile away. Again we flushed them without getting a shot. That time we saw them settle in the distance near a grove of swamp willows. We circled and came up under cover of the grove. At length, after a wet passage through the swamp we saw the mallards in a puddle just 60 paces distant.

They were close together, and as that was before I began to read RECREATION we decided to shoot them on the ground. With my heavy shot I felt sure of killing them, so I told Pete we would both shoot at once and divide the ducks. The 2 reports blended into one, and over the heavy cloud of smoke we saw one duck starting for the

North Pole; the other lay feebly flapping one wing.

"We got one duck!" cried Pete, not thinking of his light shot. As we expected the other duck would return we reloaded the guns and sat still under cover. Soon we saw him. He circled several times, but always out of range, and finally flew away.

"We would better see about the one we have," I said. Before we got within 20 yards of her she, too, started for distant parts. We gave her a parting salute of 4 shots, but failed to stop her mad flight. Pete looked at me and said, "We hain't got no duck." "So I see," said I. Going home we swore that if we ever wounded another duck, we would keep on wounding it while a feather moved.

B. B., Little Sandusky, O.

NO, MEADOW LARKS ARE NOT GAME.

That charming story of "A Boy and a Grouse," in December RECREATION, reminds me of a certain December afternoon when I sallied forth determined to get a grouse or die in the attempt. The woods were thick,and I was walking along a narrow path with high shrubs and evergreens on each side. Suddenly there was a startling whir-r, and a streak of feathered lightning crossed the path just ahead of me. It was a difficult shot for an expert, to say nothing about a novice, as the bird was visible only an instant. I didn't have time to bring the gun to my shoulder. but blazed away with the butt against my biceps, as I had no difficulty in remembering for several days afterward. The feathers flew, and I rushed into the bushes confident the bird had dropped; but search as I would, I could not find it, and finally gave up discouraged I walked on about 200 yards, and was standing on a side hill when I saw something fluttering 25 yards away. It was my grouse, beating the air with his wings in a last effort to rise. He had flown as far as he could after being shot and then dropped to earth to die.

I saw a lone meadow lark in some corn stubble last winter, notwithstanding we had had 3 weeks of snow and cold weather. Meadow larks were plentiful here last fall; I saw one flock of at least 200. I think there should be an open season on these unquestionably game birds. Make it short and late, if necessary, but where they are so plentiful and other game is scarce give us a chance at them. They are larger and more difficult of approach late in the season than any of our game birds.

Arthur L. Owen, Cortland, N. Y.

CRITICIZES THE CLUBS.

In the earlier days of California a few rich men got the Legislature to pass a bill allowing the sale of swamp lands belonging to the State, at a nominal price. Then by procuring fraudulent applications the capitalists obtained possession of great tracts of overflowed lands. As a result a few men and shooting clubs control all the water fowl shooting in California.

For their further protection these clubs have joined to have another law passed, and it has already advanced to a third reading. It is an infamous piece of class legislation, and if it becomes a law will convert the State into a game preserve for the exclusive benefit of a small class of wealthy sportsmen. Wild game belongs to the people generally, but under this bill only those controlling the game marshes are to be privileged to shoot over them. It prohibits the sale of all kinds of game. Market dealers can not offer it for sale without committing a misdemeanor. All game of any value is to be reserved hereafter for the sportsmen's clubs and their wealthy friends, and no one else is to have any.

Under existing laws game of all kinds has been well protected; whatever benefit was to be reaped from an abundance of game the public have shared in equally. Now all is to be changed if the bill passed in the Senate becomes a law. Poaching will be encouraged. Jurisdiction over wild game is to be taken from the Fish and Game Commission, and the State is to provide game keepers for the clubs at its own expense, through the creation of a Game Commissioner who will have power to appoint an endless number of deputies.

I can not afford to be a club member, though I am fond of hunting, yet I have been unable for years to find a place to shoot a duck without being ordered off as a trespasser. The clubs have got the earth; now they want the State to pay to protect their game.

W. G. Hall, San Francisco, Cal.

THE GUIDE SYSTEM.

I am bitterly opposed to the guide system and to big advertised hunts, even for so-called varmints. Both create a desire to kill and to be classed with men who have more money than sportsmanship. Without wishing to hit President Roosevelt in particular, the reduction of cougars in Colorado will result in raising the bounty on coyotes in that section. Make a specialty of coyotes on a well advertised hunt and some good will be done.

I have a fair knowledge of so-called guides, having lived with them, hired them, and as often fired them. Have known them to drive game away from each other for days, until the sucker or suckers employing them agree to pay so much a shot at deer, so much at bear, etc. Then the slaughter begins.

Not that there are no good men in the business, nor that it is not often necessary to hire them, with their outfits; but as a rule they are a shiftless, low-down set of law breakers, and unless there are women along, a party that needs a guide needs a nurse as well.

In our 9 months trip from Fort Wrangle to Dawson, 4 months dragging a sled, we found out the true worth of this class of people. They invariably were in the rear and the first to lie down. I have even seen them crying. A little worse than the white guide is the Indian. If the little bird does not whisper just right to him you are out a guide. To see the sloppy praise and the mixture of patronage, fawning and write-ups these hired game destroyers come in for is sickening.

Geo. F. Wright, Chicago, Ill.

DECLINED WITHOUT THANKS.

I have yours asking whether the report that I had killed 125 wild ducks in one day is correct. I would say in reply that it is correct. The date was November 6th. Among the ducks shot were 25 canvas backs and 30 red heads. November 11th I killed 138 ducks. This is not an unusual day's bag when the conditions are favorable; I have often done better. I had good shooting, however, the morning of the 11th, when I had picked up at sunrise 43 ducks. How would you like a descriptive article with 2 or 3 sketches representing duck shooting on the Susquehanna flats? I do considerable special work, and should be pleased to have you advise me if such an article would be desired by you, and what you would be willing to pay for, say, 2,500 words with the sketches.

W. T. Jackson, Havre de Grace, Md.

ANSWER.

You say it is not an unusual day's bag, and that you have done even better. It would be unusual, and even impossible, for any decent sportsman, for all such men quit when they have enough, even though birds may still be flying thick. However, for a confirmed game hog, as you are by your own confession, such things are possible. As I have before had occasion to say, it is a pity that all States do not enact laws that would send such men as you to prison for 6 months for each of such offences as you say you have committed.

No, I do not want any such stories of slaughter as you offer to write for me, and no decent journal would print such, even if you would furnish them free of charge. —EDITOR.

THE OUTLOOK IN OHIO.

The weather conditions during the whole of the last open season were extremely unfavorable for successful hunting, being a succession of cold, dry winds. The performances of even the most reliable field dogs were disappointing, and our sportsmen were thus deprived of the most enjoyable feature of quail shooting. There was a more abundant supply of birds than this part of the State has known for years, and thousands are left over in this county for another season. That is, providing they escape the pot-shooting rabbit hunters whose opportunity arrives with deep snows and freezing weather.

Fox squirrels are increasing, and another year or 2 of immunity, such as they enjoyed during the last 2 years will make squirrel shooting again possible in this section.

Our ruffed grouse have been exterminated, and a few of us are trying hard to introduce the ringneck pheasant, though it must be admitted our efforts hitherto have been fruitless.

We hope the humiliating jumble known as the Ohio game laws will be revised at the coming session of the Legislature, along lines of rational protection and common sense. Oh, for protection that will protect and wardens that will ward!

L. A. S., 6015, Urbana, Ohio.

A PITIFUL SLAUGHTER.

Enclosed find clipping from the Murfreesboro, Tenn., Banner. No words are strong enough to sufficiently condemn such slaughter as this.

T. H. Doods, Petoskey, Mich.

The item to which Mr. Dodds refers is as follows:

Thousands of robins are being brought daily to Murfreesboro. These birds are caught at night in the extensive cedar forests near Murfreesboro. At this season of the year they flock to these parts in countless thousands to feed on the berries of the cedar, of which they are exceedingly fond. At night they congregate in certain groves by tens of thousands, and there the sportsmen with the bag, but gunless, capture them. Parties are made up nightly and go out from town to these roosts, and in most instances report remarkable catches.

Four gentlemen from here recently caught 360 birds, and they stated that there were quite 200 persons operating in the same forest, most of whom were successful in catching 2 or 3 messes of birds, and some individuals as many as 150. These birds sell on the market for about 7½ cents a dozen, but so abundant is the supply that dealers find it profitable to ship them.

There are persons who make a business of catching these birds for the market, and they make fair wages One man can make an average catch of 4 or 5 dozen a night. All the returns from the sales are net profits, as the method of hunting requires no outlay in the matter of ammunition or otherwise, and the work or rather sport, is engaged in at night. When properly prepared this bird is palatable and is eagerly sought by housekeepers.

It is strange that the good people of Tennessee will allow the pot hunters of that State to continue the slaughter of innocent birds at the disgraceful rate and in the brutal manner outlined in the foregoing

dispatch. There are thousands of men and women in Tennessee who are opposed in sentiment to this kind of slaughter, and they should rise up and demand of their law makers that it be stopped. It could be stopped in that State, as it has been in a dozen others; and I trust some strong, active man or woman may soon take the initiative in securing such legislation as will put a heavy penalty on the killing of a robin or any other song or insectivorous bird at any time. EDITOR.

MY TWO-PRONG.

We had been hunting 2 weeks in the vicinity of Laramie peak, Wyoming, and had not succeeded in getting anything larger than rabbits and grouse. Deer and bear signs were plentiful, but owing to the extreme dryness of the brush it was almost impossible for us to move without making more or less noise, and thus alarming the game.

We had planned a big hunt one day, intending to start at daylight, but in the morning we found it had been raining all night and was still misty. My partner decided to forego the pleasure of a tramp through the dripping underbrush, so I started alone, expecting to return in time for breakfast.

I had hunted about 2 miles up Green canyon, and on coming out of a quaking asp thicket caught sight of a 2-prong mule deer feeding about 125 yards ahead of me in a park. On seeing me he started for the pine timber, about 100 yards to his right. So doing he gave me his broadside, and the ball opened.

The first shot from my 40-82 Winchester picked up the sod about 2 feet behind him. I got his speed and the second shot went home with that dull spat which makes a sportsman's nerves tingle. I had the satisfaction of seeing my beauty lower his tail and tie a knot in his back as he disappeared in the ferns.

I picked up his trail at the edge of the timber, and after following it in about 100 yards found him all in a heap at the foot of a big pine. My bullet had entered his body just behind the shoulder blade and passed through, making a clean wound and not spoiling a pound of meat.

S. D. Sewal, Marion, Ind.

A POT HUNTER IN TEXAS.

If ever there existed a locality where game needed protection this is the spot. The warm climate, and the food afforded by the rice fields and marshes make this the ideal home for ducks, snipe, etc.

As soon as this game begins to fly every loafer in the county oils up his cannon, and every flock of ducks that chances to alight within range is sure to suffer the loss of one to 3 dozen birds.

I chanced to hear a fellow remark that he had "killed 27 ducks in 2 shots with a single barrel gun." When asked how he managed it, he replied: "Sneaked up on 'em in a canal and shot into the flock while they were feeding." When asked if he enjoyed that kind of shooting he said: "Well, I guess so; I sold 'em for $3.

Despite all this, the following clippings from the Houston (Tex.) Daily Post will show that some of the proper spirit exists in this State.

Texas quails have hit on a combination. They are dining largely on the bold weevil, thereby contributing to the public good; at the same time this diet makes their flesh unpalatable and discourages sportsmen, thereby contributing to their own good. Success to their efforts.

The shipment of game in milk cans is the latest move adopted by those who desire to evade the game laws. Three innocent looking new milk cans that came into St. Paul by the Northern Pacific express, when seized and opened, were found to contain 100 quails.

Joe Rice, Beaumont, Tex.

A WEAK-KNEED JUSTICE.

Here is a clipping which shows that it is a nice thing, in more ways than one, to be a millionaire.

Richmond, Va.—Senator J. H. Cochran, of Williamsport, Pa., and a dozen officers of the Pennsylvania Central railroad, who are his guests at the Rosegille estate near Saluda, Middlesex county, were in a magistrate's court at Saluda this morning on the charge of violating the game laws. Squire Davis, the gentleman who held the reins of justice, was somewhat abashed by the fact that more than $50,000,000 were represented in his court, and soon acquitted the magnates of the charge of killing birds out of season.

"Squire Davis, the gentleman who held the reins of justice," held them with a mighty loose hand.

Foster Garrison, Jr., Paulton, Pa.

ANSWER.

The chances are that if a party of poor, ignorant laboring men were brought before Squire Davis, charged with violating the game law, and that if the charge were proven, the Squire, would fine them heavily. He should have treated the millionaires just as if none of them had a dollar in the world. If they were proven guilty of breaking the law, they should have been fined to the limit and compelled to put up. This allowing wealthy men to violate the laws simply because they are wealthy, is disgusting, and any judge who excuses the misdemeanor on any such ground violates his oath and should be impeached.—EDITOR.

GAME NOTES.

Mr. Frank Stallings and Messrs. Miller and Dillon, the Detroit baseball players, who are visiting Mr. Stallings, returned this morning from a hunting trip in the vicinity of Catherwood, Ellenton and

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Silverton. They say they had a glorious time and found game in abundance. They killed 3 turkeys, a number of ducks and 340 quails.—Augusta (Ga.) Herald.

I wrote Mr. Stallings about this matter and he replied as follows:

The quail shooting you ask about took place near Irvington, S. C. There were 3 in the party. It was an all-day hunt, each man working a separate dog. We bagged 292 quails and one wild turkey.

F. M. Stallings, Augusta, Ga.

ANSWER.

It is not surprising that the baseball players should have made hogs of themselves, because they are accustomed to rooting for other games than the ones they play at, but Mr. Stallings is postmaster at Augusta, and one would naturally expect him to be a gentleman under all circumstances. He has, however, besmeared himself with the filth of the game hogs' wallow, and President Roosevelt, being a thorough sportsman, should remove him at once.—EDITOR.

It was on a clear, cold morning in November that we started from our camp on the bank of Little Spokane river, about 25 miles North from Spokane. The first rays of the morning sun diademed the head of Mount Carleton, among whose foot-hills we were to hunt for deer. We kept on our march for several hours, with only a chance shot at a rabbit or grouse. At length we began to discover fresh tracks of deer, and pushed forward, occasionally following a track for a long distance. Not a deer came in sight. The sun had well nigh reached the meridian before we stopped to lunch, after which we began to retrace our steps to camp. A long and circuitous tramp over fallen trees and through tangled underbrush brought us to the backbone of a long mountain, and we took a bee line for camp. Within ½ a mile of it a large fat doe appeared with head erect and nostrils distended. "Bang," "bang" went our guns and down it came. We set about dressing it and having completed the job we loaded it on one of our saddle horses and started home.

G. F. Brill, Spokane, Wash.

I received your letter asking if I killed 37 quails in one day. I did. It was the largest bag I made last season, though I many times killed more in previous years. Eight years ago I shot 110 quails in one day.

Covington Reynolds, Bridgeville, Del.

And so it appears that you are one of the Delaware breed of swine who have not yet been reached by the enlightening influence of RECREATION. If you had been reading this magazine you would have known long ago that the making of such bags as you boast of puts you in the pen with the other game hogs.—EDITOR.

My favorite sport is hunting. I have a single barrel Forehand shot gun, a double barrel muzzle loader, a 50-70 Springfield rifle and a 22 Hamilton. Sometimes my father hunts with me. The other day I went out with my single barrel to a place 2 miles distant from our farm. I was looking for fox squirrels and saw something in a large squirrel's nest. I blazed and the object disappeared. Then I saw something in the crotch of the tree, and when I fired, down came a raccoon. Another stuck his head out of a hole in time to get shot, and just then the one on the nest fell. I think 4 coons in 2 minutes is doing well.

Jason I. Chappell, Springport, Mich.

A dozen years ago we had abundance of sage hens and prairie chickens. Now they are rare.

Herds of sheep range over the country, trampling over the nests, breaking the eggs or frightening the mother from her post, when the Dago herders gather and eat the eggs.

These shepherds are worse than game-hogs. Deer will not stay where the sheep range, so we are losing our deer, too.

Our game laws are not enforced. No game is protected. A whole day's tramp will not secure half a dozen shots.

James P. Riley, Humboldt Co., Nev.

All over this country men who take RECREATION and men who do not; men who like it and men who do not; men who curse its fighting editor and men who do not, have been influenced by the new gospel of game protection, which it is so industriously engaged in spreading.

You have reared a mighty monument to yourself. No marble erected to your memory can ever prove so enduring as your work in shaping and permanently forming American sportsmanship.

Dr. A. J. Woodcock, Byron, Ill.

Charles Hileman and William Cartwright, wire nail workers, started out from Anderson, Ind., before daybreak for a hunt. Hileman has a bird dog and his son has a goat. The dog and the goat are about the same size and sleep in the barn. The barn was dark at the time the rig was got out for the hunting trip. After all was ready Hileman went into a dark corner to pick up the dog, which he supposed was asleep. He got the goat instead, and not observing his mistake, put Billy into the rear of the wagon. After the wagon had bumped over the roads 2 miles from town the goat gave a plaintive bleat, and the hunters hurried back to town, but too late to cover up the joke. The dog was still asleep in the barn.—Indianapolis News.

ALMANAC FOR SALT WATER FISHERMEN.

The following will be found accurate and valuable for the vicinity of New York City:

Kingfish—Barb, Sea-Mink, Whiting. June to September. Haunts: The surf and deep channels of strong tide streams. Baits: Blood worms, shedder crabs and beach crustaceans. Time and tide: Flood, early morning.

Plaice—Fluke, Turbot, Flounder. May 15 to November 30. Haunts: The surf, mouth of tidal streams. Baits: Shedder crabs, killi-fish, sand laut. Time and tide: Ebb, daytime exclusively.

Spanish mackerel—Haunts: The open sea, July to September. Baits: Menhaden, trolling—metal and cedar squids.

Striped Bass—Rock Fish, Green Head. April to November. Haunts: The surf, bays, estuaries and tidal streams. Baits: Blood worms, shedder crabs, Calico crabs, small eels, menhaden. Time and ide. Night, half flood to flood, to half ebb.

The Drums, Red and Black. June to November. Haunts: The surf and mouths of large bays. Bait: Skinner crab. Time and tide: Day, flood.

Blackfish—Tautog, April to November. Haunts: Surf, vicinity of piling and old wrecks in bays. Baits: Sand worm, blood worm, shedder crabs, clams. Time and tide: Daytime flood.

Lafayette—Spot, Goody, Cape May Goody. August to October. Haunts: Channels of tidal streams. Baits: Shedder crabs, sand worms, clams. Time and Tide: Day and night flood.

Croker—July to October. Haunts: Deep channels of bays. Baits: Shedder crabs, mussels. Time and tide: Day flood.

Snapper—Young of Blue Fish. August to November. Haunts: Rivers and all tide ways. Baits: Spearing and menhaden; trolling pearl squid. Time and tide: Day, all tides.

Sheepshead—June to October. Haunts: Surf and bays, vicinity of old wrecks. Baits: Clams, mussels, shedder crabs. Time and tide: Day, flood only.

New England Whiting—Winter Weak-fish, Frost-fish. November to May. Haunts: The surf. Baits: Sand laut, spearing. Time and tide: Night, flood.

Hake—Ling. October to June. Haunts: Open sea surf, large bays. Baits: Clams, mussels, fish. Time and tide: Day and night, flood.

Weak-fish—Squeteague, Squit. June to October. Haunts: Surf, all tideways. Baits: Shedder crabs, surf mullet, menhaden, ledge mussels, sand laut, shrimp. Time and tide: Day and night, flood preferred.

Blue Fish—Horse Hackerel. June to November 1st. Haunts: Surf, open sea and large bays. Baits: Menhaden, surf mullet and trolling squid. Time and tide: Daytime; not affected by tides.

SOME NEEDED AMENDMENTS.

We hope to have a law passed here this year to shorten the time for taking brook trout to the months of May, June and July. I wish it might be still further shortened to June and July, but we can not expect too much at first.

I do not like the idea of protecting the small trout and allowing those to be caught that are old enough to deposit spawn; for where do the small trout come from if not from spawn. Who ever saw a female trout under 6 inches in length that had spawn ready to cast? That matter seems to have been overlooked. I should say to save the trout 8 inches or over in length and let those smaller be caught. By following that plan our brooks would be much better stocked with trout. Am I alone in so thinking?

C. L. Fisher, South Deerfield, Mass.

ANSWER.

The object of laws regulating the taking of fish is to preserve the species in reasonable abundance. Ordinarily this is done by means of a close season; by fixing a minimum size limit for the fish that may be lawfully taken; and by limiting the number that may be taken. The close season, with most species, should include their spawning time, and this results in the protection of large fish at the time of their greatest usefulness. Large fish are also protected by limiting the catch. If fishing is to be allowed during or closely preceding the spawning time of the fish it would certainly be helpful if the large, ripe fish could be spared. But this would probably prove impracticable. It would seem that, if the close season is made to begin some time prior to the spawning season and continue during it, the minimum size fixed at say 6 or 7 inches, and the catch limited to a low number, the best results would be secured.

The protection of adult fish has some advantages, but nature, in a way, does that. The old fish are more wary than the young and inexperienced. Furthermore, the biggest ones usually get away if you do hook them. B. W. E.

SHARKS AND THEIR WAYS.

The mouth of a shark is far underneath his head; therefore he must be under his prey and turn over before he can bite. Sharks are fond of turtles; those big ocean turtles, you know, that can swim off with 2 or 3 hundredweight on their backs. The turtle knows the shark loves him, but the affection is not reciprocated. When a shark presses his attention upon a turtle, the latter dives to the bottom and lies low. So does the shark, knowing that the turtle must in time come to the surface to breathe. As a shark's patience will outlast a turtle's breath. the issue is not hard to guess.

On your next ocean trip look over the stern of the vessel; you will probably see a dark brown fish, about 4 inches long, playing around the rudder. They are pilot fish. When you see them you may know there is a shark not far away. Look astern and you will see his back fin just above the surface of the water. He is following the

ship, waiting for the pilot fish to signal him that food is to be had. If you go aloft and look down you can see the monster plainly. Make a rope fast to a piece of salt beef or pork, throw the meat overboard and tow it astern. If the shark is hungry you can bring him under the stern; if very hungry, you can coax him right alongside. That is your chance to drive a harpoon into his back. Then hook on tackle and hoist him aboard.

The pilot fish has an oval sucking disk beneath its head. It is also amazingly devoted to its big friend or patron. When you begin to hoist the shark out of water the pilot fish attach themselves to the monster and come aboard to die with him.

A shark dies hard, and while he is about it, take care to stand clear of his tail. When he is dead take off his hide, dry it and use it for sandpaper; that's all the creature is good for.

I have heard shipmates tell of sharks 20 and 22 feet long. The largest I ever saw was not over 14 feet.

Sailors are supposed to do their own washing, mending, etc., but in the merchant service they often make the ship act as laundress. They fasten their soiled clothes to a rope and tow them overboard until they are clean, or at least what Jack calls clean. One day I had my wash out on the llne. When I went to haul it in it was missing, The next day we harpooned a shark, cut him open and I got my wash ing back. C. L. Herald, Findlay, O.

AN OREGON FISH HOG.

Pat Murphy of our city is a fisherman of tremendous ability. Others may catch bigger fish, but for numbers he outclasses his fellows emphatically. Every day for 2 weeks Pat went to the river and each day returned with a string of little trout reaching into the hundreds. During the season Pat says he has caught 2,744 trout. Last Friday he had a string of 144 trout most of them about 6 inches long, although there were a few of larger growth. Pat says he caught them in 2½ hours. A fish a minute seems pretty fast fishing. He uses salmon eggs for bait and gets almost every nibbler.—Rogue River, Ore., Courier.

I wrote to Murphy, and here is his reply, *verbatim et literatim:*

Grant Pass, Ore.

Dear Sir:—

I have received your date of the letter menching whether I caught 144 trout in one day; Yes sir I caught them in two hours and a half. I caught them 2744 in Fifteen days I can prove it by 2000 people in grant's Pass. I am suppose to be the best fisherman in this town and I will sometime send you my picture with a string of trout—Ranging from 6 inches up to ten pounds You may thinking I am braging but if you where here I would soon prove that I aint I can cast a line with rush a 12 ounce poll 89 feet while in casting a small hook of course I aint much hand for catching large fish but little trout from 6 to 12 inches I wont take a back seat from nobody Well good Bye Hoping To here from you soom I Remaing yours ever

Arthur S. Murphy.

Supposed to be the best fisherman in your town, eh? I doubt it. I imagine there must be a lot of decent people in a town of 2,000 inhabitants, none of whom would ever think of rating you as a fisherman, but simply as a low, vulgar brute who would delight in destroying fish and all public property that he could get away with without being arrested and punished After all, such men have their uses. By displaying your swinish instincts you inspire good people to demand the enactment of laws to punish such as you, and if you and a few more keep on, Oregon will, one of these days, have a law that will place you behind bars.—EDITOR.

A CATFISH KEEPS GUARD.

My friend, Mr. McVeigh, who is a student of nature, was camping in the highlands of Ontario. One bright morning while standing on a log in shallow water, he noticed a small catfish, *Amiurus catus*, near the log and close to the bed of the lake.

It seemed hovering over some object of consequence, as it remained in the same position, although McVeigh was in full view. Wondering what the little chap was doing, the interested spectator looked more closely and saw beneath the fish a ball of spawn several inches in diameter. Going to the tent my friend returned with a piece of bread and a bluebottle fly. Rolling a moistened crumb in his fingers he dropped it about a foot from the fish. Immediately the little guardian darted for the crumb, which he caught before it reached the bottom. Returning to his charge, he spewed out the crumb to one side of the spawn. McVeigh then impaled the fiy on a long straw and gently pushed it toward the fish. Again there was a rush and the fly was caught and carried back to the nest. When released it popped to the surface like a cork and swam away.

Calling his little spaniel, Mr. McVeigh bade him take the water and walk out to the fish. When within a few feet of the nest the brave little fish darted at the dogs' leg, much to the surprise of doggie. Then McVeigh put the little guard's bravery to a still more severe test. Making a running noose on a piece of string he carefully worked it over the fish's head, and with a quick jerk brought him out on the log beside him. Waiting until he thought the little fellow had about forgotten home and family, he put him in the water on the

other side of the log. In about 3 seconds the fish was back in his old position.

Three days later the adult fish had disappeared, but close to the old spot was a black patch of wriggling young catfish.

R. C. W. Lett, Ottawa, Can.

LEAVE SOME FOR OTHERS.

In Oregon and Washington the law limits an angler to 125 fish for a day's catch. That is certainly liberal. I see that you roast men who catch 40, 50 or 60 fish in a day and call them fish hogs. Would you hold a man in Oregon to the same limit that you think is right in the Eastern States? If I go 20 or 30 miles to fish, do you want me to stop at 40 or 50, when there are a dozen men on the same stream who will catch the legal limit if they can? If a man takes a little vacation in the mountains and finds fishing good, he will naturally want to salt or possibly dry and smoke a few fish to take home. Would you blame him if he caught his legal allowance in that case? If a man is a fish hog on either of these propositions, then every fisherman in Oregon and Washington is a hog. And our hunters are the same. They will shoot the limit if they can.

Myron Otis, Portland, Ore.

ANSWER.

No man has a right to waste fish in Oregon or in any other State. The fact that trout are so plentiful in your State that a man can catch 100 in a day does not justify him in doing it even if the law does permit it. I claim that no man has a right to fish for his neighbors; that he should simply take a reasonable number for himself and his family for a day or 2 and let others do the same. If the present slaughter of fish is allowed to go on the time will come when trout will be just as scarce in Oregon streams as they are in New England streams to-day.—EDITOR.

PROBABLY PARASITES.

In the South central portion of New York State is a meadow brook which has for a number of years been one of the most satisfactory and enjoyable fishing grounds in that portion of the country. It is fed by a number of large springs which have particularly low temperature and it flows scarcely more than a mile before emptying into a pond which is the termination of the trout fishing. Up to last season, the fishing and the fish themselves were in ideal condition; but last year, owing, perhaps, to an unusually protracted and high flow of water, the stream, which is not large, became seriously clogged with watercress for the greater part of its best fishing length. For perhaps to this or some other reason, with which I am unacquainted, many of the trout have become affected with some sort of a disease which is marked by a kind of prickly black scale, or parasite, covering their bodies more or less extensively. Kindly advise us whether this is due to the growth of the watercress or to some other cause; and in any case whether there is any remedy for the disease. If so, what is it?

Remington Squire, New York City.

These are probably parasites known as psorosperms of some sort. Positive identification is, of course, impossible without specimens. If Mr. Squire will kindly send one or more specimens of the fish to the U. S. Fish Commission, Washington, D. C., the parasite can be identified for him and the cause can then be better understood. Ordinarily parasites of these kinds attack fish which are enervated or weakened in any way through unfavorable environment, such as may be produced by insufficient water supply, too high a temperature, impure water, too much crowding, insufficient food, etc. The presence of too rank a growth of watercress might lead to similar results, but it is not probable.—EDITOR.

WHICH ONE IS THE LIAR?

I should like to place 2 big, fat hogs in your private pen. One I call Pat. H. Connell and the other Ed. L. Case. October 24th, between 5 and 6.30 o'clock, they caught 347 pounds of pike and bass. I can not give them a proper roast, so kindly help me.

Game and fish are abundant here. Quails are protected until Sept. 1, 1903. We have no spring shooting in Wisconsin; a good State with good sportsmen. There ought not to be any law against killing game hogs, same as any other porkers.

L. C. D. Prairie du Chien, Wis.

On receipt of this letter I wrote Connell and Case, asking them if the statement was accurate. They replied as follows:

Yes; but there were 3 of us and we caught 437 pounds in one day.

P. H. Connell, Prairie du Chien, Wis.

Your informant is wrong. Pat Connell and I, 2 thorough sportsmen, in one afternoon caught 447 pounds of fish instead of 347 pounds. We could have caught more but it grew so dark we could not see the lines.

Ed. L. Case Prairie du Chien, Wis.

It appears that these 2 men are not only shameless butchers but one of them is also a liar. Connell says there were 3 in the herd; Case says 2. Which is the liar? I say Case. What is your guess?—EDITOR.

A GOOD PLACE TO GO FOR TROUT.

Fishing through the ice has begun on Elk lake. Mr. Norman Hawley captured an 8 pound Mackinaw trout to-day. Mr. Hawley is the captain of the steamer "Marie." He pilots fishing parties around and through the numerous lakes near this place. If any angler wishes to enjoy a week or more fishing for black bass, muskalonge or brook trout, let him visit this place during June. We have a grand inland waterway. Leaving Elk Rapids for Bellaire on Intermediate river the steamer passes through 5 rivers and 5 lakes on the route, and such fishing! While the steamer is passing up Torch river one can take up a position on the hurricane deck or the prow and see rainbow trout, speckled trout, Mackinaw trout, bass and pickerel darting in every direction. The water is so clear the bottom of the river is visible throughout its entire length. Near where Torch river leaves Torch lake, Rapid river flows in, the greatest trout stream in Michigan. There are many rainbow and brook trout in Torch lake, and at certain times they run up Rapid river in schools. One man from Traverse City caught 40 pounds of trout in one half day at this place. Of course he is a fish hog. He always fishes for count. There are a few such in this country.

Brown Hackle, Elk Rapids, Mich.

NIBBLES.

One morning in May I was fishing in the beautiful and rapid Cedar river. I had fished down from Stover, 5 miles from Bellaire, and had caught 10 trout, 8 to 10 inches long. Just below the outlet of Intermediate river there is a stave mill. On the mill dock one of my friends was standing, and I went out to show him my catch. I was 10 years old at that time and, naturally, more than proud of my 10 fish. While talking I cast my line from the dock, though without the least expectation of hooking anything. I went on talking. Suddenly my line ran out until the reel was almost bare. It took me 10 minutes to win back as many yards. By that time all the mill hands were watching the fight and yelling instructions. I was too excited to pay much attention to what they told me. At last my big trout tired and I got him in. He weighed 3 pounds, one ounce; the largest trout ever caught in Cedar river.

Charles Cross, Bellaire, Mich.

The town of Weld, in which I live, is situated among the hills and mountains of Northwestern Maine. Near it lies a sheet of water, 6 miles long and a½ wide, known as Lake Webb. In that lake are found landlocked salmon, brook trout and black bass, besides great numbers of pickerel. Fishing during May and June is unexcelled, and through July and August bass and pickerel are taken in any quantity. Though 12 miles from a railroad, access to this ideal resort is readily had by stages in about 2 hours' time from the station. Between 30 and 40 summer cottages have been built in the last few years for the accommodation of visitors. The scenery is the finest in the State of Maine. Deer and bear are numerous. Guides can be procured at any time in the fishing or hunting seasons. Any one wishing a place to spend a vacation, whether sportsmen or not, will make no mistake in coming to Weld. Good board can be found at hotels or farmhouses.

Lester L. Jones, Weld, Me.

For many years the sloughs below Warsaw, Ill., were famous fishing grounds, and they would have remained so until the present day but for the great mistake the fish commissioners made in stocking our waters with German carp, which destroy the spawn of game fishes, and render the water so muddy at times that bass or crappie cannot see the bait.

Twenty years ago I saw 90 black bass taken by 3 men at Brandy Bend, 6 miles below Warsaw, in the afternoon of one day and the forenoon of the next, and all caught with spoon hooks. Many of these fish weighed 2, 3 and 4 pounds. Good catches have been made at the same point during the last 2 years. The publisher of the Constitution-Democrat and I have taken, the past season, with rod and line, 281 black bass and 678 crappie. *Illinois paper.*

The writer of the above has a colossal nerve to charge the disappearance of game fishes in Illinois waters to the German carp. In his own statement he acquits the carp and convicts himself, the editor of the Constitution-Democrat and a lot of other swine, of the crime of having destroyed the game fishes of those streams.—EDITOR.

William West of Papillion, Neb., was convicted in December last of fishing in the Platte river with hoop nets in violation of law and was fined $20 and costs. When West was arrested he put up a big bluff about shooting the officers, but the cowards who steal fish from the public in violation of law have not courage enough to fight, and West proved no exception to the rule.

The clipping from which the above information is obtained was sent me by R. C. Barton, of Papillion, who adds, "William Childers, another fisherman, got into the same fix. The State Fish Commissioners came down the river in a boat, found Childer's nets, burnt 22 of them and turned loose about 1,200 pounds of fish that were confined in fish boxes. The Commissioners gave him 2 weeks in which to leave the State or be prosecuted. Childers got out in preference to being cinched."

GUNS AND AMMUNITION.

Anybody can keep on shooting all day, but it takes a gentleman to quit when he gets enough.

GUNS FOR BIG GAME IN THE FAR EAST.

New York City.

Editor RECREATION:

When I left America for the East my hunting arms consisted of one 50-100-450 and 2 30-40 Winchester rifles. I had long studied the question of heavy *vs.* light rifles, but opinion seemed so divided that I was, after all, left to follow my own judgment. I argued that a small bullet in a vital place was as good as a large one, and guided only by my experience with big game in this country, I chose my weapons as above.

When I lost an elephant and a rhinoceros, and narrowly escaped being gored by a wounded wild ox, I saw my mistake, and quickly procured a double barrel 12-bore rifle, using 120 grains of powder, and an 8-bore, burning 240 grains. In a comparatively open country, where you can see your game at 100 yards or so and be certain of a clear shot at 50 yards, the 50-100-450 is satisfactory. At least it is to me; though no sportsman in the Far East looks on so light a gun with favor. It would be dangerous shooting, of course, but danger has its attractions.

I should be satisfied with the 50 caliber in any country open enough to permit picking my shot, as may be done in America and in most parts of India and Africa. But in such dense jungle as prevails in Siam, the Malay peninsula, Sumatra, and Java, the sportsman who ventures after elephant, rhino, buffalo, or wild cattle stands a poor chance of scoring and a good chance of losing his life The reasons are not many, but potent. In dense jungle you can rarely pick your shot: you are always at a disadvantage, since you must be prepared for a sudden charge from an animal you can not locate until it bursts on you 30, 20 or even 10 feet away. In the case of elephants or rhino, you are in the thickest jungle, and likely as not sunk half way to your knees in mire. Under such conditions you must have a rifle that will check the charge, at least, until you can get a killing shot. The only vulnerable spot presented by a charging Asiatic elephant is no larger than a saucer; a rhino must be shot in the eye; the buffalo holds his nose so high it is impossible, unless you are on a higher level, to send a bullet into his brain; while wild cattle are most determined to reach an enemy and die hard. To land a fatal shot on any of these animals when charging in thick jungle is beyond the average sportsman.

If you want a fighting chance, you must have a gun shooting sufficient lead with such force that the impact of the ball will bring the charging beast to his knees, and give you an instant's time to put in another ball where it will do the most good.

It is well enough to talk of the shock and penetration of the small bore smokeless rifles, but under the conditions I have cited you want extraordinary smashing power. You must get the beast down, and at once. Unless you can put your small bullet into the brain of the elephant you will not bring him down, nor can you invariably stop either the rhino, buffalo, or wild ox by a well placed shoulder shot.

The 50-100-450 is undoubtedly the strongest shooting of the comparatively small calibers, yet I put 3 50-100-450 metal patched soft nose bullets into an elephant, 2 directly back of his fore leg, and he carried them off swiftly. He shed some blood, which I tracked 2 days. He may have died eventually, but if so that is only one more argument against the smaller calibers. I put 2 full metal patched 50 caliber bullets and 3 30-40 smokeless into and directly behind the shoulder of a rhino swimming across a river. He kept on and disappeared in the jungle on the other side. He got out of the water with some difficulty, and perhaps if I could have crossed the torrent I might have secured him. I put one full jacketed 50 caliber in the shoulder and one soft nose immediately behind the shoulder of a bison, and he rushed me so closely I thought my days of big game shooting numbered.

I was curious about the 30-40 high velocity gun, and made many experiments. Though its execution with soft nose bullets was all that could be desired on deer and small bear, it was useless for larger game, unless a head shot offered. It has been claimed that the motion set up in the molecules of tissue of an animal hit by a high velocity small bore continues to tissue contiguous, and so an enormous shock is given; but it is yet to be proven that there is any deadly shocking power due to vibration set up by the small bullet on its way through the animal.

If the brain could always be reached the 30-40 would be as deadly as the largest bore; but the fact is that for the dangerous game of the East the only reliable weapon is one of the large bores, from 12 to 4. Were I to make another hunt in the

dense jungles I should carry a double-barrel, 8-240-1150, rifled about 6 inches at the end of the barrels and bearing rifle sights, and a 12-bore paradox for close jungle work with tiger and leopard. The latter is equally good for shooting shot; but I do not care for the 12-bore rifle. My experience with it was not pleasant ,and convinced me that the ball is too heavy for the quantity of powder burned.

I should always have both with me in the jungle, using the 12-bore if luck gave me a head shot, the 8-bore if only a body or shoulder shot presented, and relying on the latter gun to stop charging animals. I should take also a 50-100-450 Winchester, one of the strongest and smoothest shooting rifles I have ever used, but not into such dense jungles as I visited.

Nothing could induce me to use express bullets or bullets hollowed to any degree. Had I needed convincing evidence of the untrustworthiness of express bullets, my last trip has provided it. Among other proofs I handled the skull of a tiger which had killed one of 2 men who went on foot to wait for him at a drinking pool. The man who paid for his sport with his life used a double barrel 577 express rifle. He missed with his first barrel, and the second struck the tiger on the ridge of the eye, exploding and blowing the eye out, but not stunning the tiger. The brute was on top of the man before the latter could reload and before the second sportsman could use his 2 shots to advantage. A solid lead bullet would have penetrated to the brain. The express bullet hardly left a mark on the tiger's skull.

The 577 is well thought of in the East by English sportsmen, but I consider the 50-100-450 better adapted for the purposes for which I should use it. It is much more accurately sighted, and can outshoot the 577 at all distances beyond 100 yards. It is for all practical purposes, as killing as the 577, is less bulky, and you have several shots without reloading, against 2 in the 577. However, the simple shot gun mechanism of the 577-168-590 pleases many a sportsman, who knows he could not repair a 50 in case of accident. To illustrate how in the hunting field all preconceived theories and notions are at times severely twisted: It happened that the gun which dealt the killing shot to both the elephant and the rhino of my bag was the 50-100-450 with full metal patched bullets. But on each occasion I had already put 2 12-bore bullets into the animals; in one instance because I could not get a head shot, and therefore did not use the 50 caliber, and in the other because I had the 12-bore in hand. Both times I fell back on the 50, because the shells jammed in the 12-bore, which was an old one and out of repair. The elephant was charging one of my trackers, and gave me a fine view of his head for an instant. My ball went in at his ear and out at the opposite temple, and he dropped instantly, much to the relief of my tracker and me.

The rhino was charging me after receiving 2 12-bore balls as near as I could put them into the fold just back of the shoulder, which is, next to the eyes and around the ears, the most vulnerable spot. I was standing on a little knoll of earth, decaying undergrowth and fallen timber. As the rhino charged he scattered the timber and rolled me down the knoll. Fortunately I tumbled to the leeward side, and the animal, losing my wind, held his course. Meantime I clung to my rifle, and regained my feet. The rhino was not over 20 feet away, and going from me when I put a 50 caliber bullet directly behind his ear. He collapsed without even the customary and ridiculous little squeal with which rhinos usually announce a mortal hurt.

With the exception of a crocodile in the side of whose ugly head I made a great hole with the 12-bore, a peacock brought down with the 30-40, a wild ox dropped with an 8-bore in Burma, and a python, I scored the balance of my bag with the 50-100-450 Winchester.

E. J. Martin.

LIGHT LOADS FOR SMALL CALIBERS.

Hiram, Me.

Editor RECREATION:

Answering H. B. Rantzan: The powder best adapted to miniature loads is Laflin & Rand's sporting rifle smokeless. I have obtained the best results by using a thin card wad over powder. Seat bullet in mouth of shell as usual and leave space between wad and lead unfilled. Of course, a wad can be used only in straight shells. The makers claim this powder will do equally well when loaded loosely. That is not always the case, particularly when U. M. C. No. 6 and No. 6½ primers are used. With strong primers adapted to high pressure smokeless powders a loose powder load is as good as a wadded one. Six or 7 grains of this powder wadded in a 25-21 shell, with bullet seated just over the grooves, gives good results. It is not so satisfactory when no wad is used.

Never try to obtain high velocity and great penetration with this powder; it can not be done with safety because of its extremely high breech pressure. For great power and penetration use Du Pont smokeless powders. I had an 8-pound Stevens Ideal No. 44 swelled in the chamber and ruined by using in it 9 grains Laflin &

Rand and a 91 grain bullet in a 25-21 shell. Until 1901 the makers of that powder recommended 8 grains for a 25-21 load; now they advise 6 grains. Laflin & Rand sporting rifle smokeless is not adapted for full charges in light rifles taking comparatively heavy cartridges. Laflin & Rand's Lightning smokeless, the new tubular grained product, is a splendid powder, and in medium charges all one could wish. Though recommended for high power rifles, it is not adapted to give a velocity of 2,000 feet a second, because it burns too quickly with high breech pressure. I have used 20 grains in a 25-35 with regular metal jacketed bullets. The accuracy seems good, although there is some recoil. The velocity is about 1,800 feet. Judging from the behavior of the rifle I would not use more than 20 grains in a 25-35.

I have found the following load accurate and efficient for 25-35: Eight grains sporting rifle smokeless with a No. 2½ Winchester primer, or 7 grains with a Winchester No. 5 or U. M. C. No. 9½ primer, or 8 grains Lightning smokeless with a Winchester No. 5 or U. M. C. 9½ primer. Use a 133 grain paper patched bullet with Leopold point. The bullet is 1⅛ inches long and has 3 thicknesses of patch paper around it. Powder loaded loosely in the shell. This load will give fine results at 200 yards.

Perhaps I should not mention Lightning smokeless powder in relation with a paper patched bullet, as I have used only 6 charges. Those gave good results. Ten grains or more of sporting rifle smokeless does not give good results with paper patched bullets. If a bullet can be patched with paper so it will not strip and lead a 25-35 barrel when used ahead of 12 grains sporting rifle smokeless, I should like to know how it is done.

Has anyone used Laflin & Rand Lightning smokeless for medium loads in black powder rifles? It burns a little slower than sporting rifle, and therefore should be better for full charges, as it would give less breech pressure. The powder burns well, and I believe a No. 2½ W. primer would ignite it thoroughly. F. M.

A SUGGESTION FOR SAVAGE.

Chihuahua, Mexico

Editor RECREATION:

In discussing hunting and hunting rifles with many old hunters, the question has often been asked why the Savage people do not make a gun to shoot the 30-40 cartridge, similar to the Winchester. I and many to whom I have talked, think the Savage, as at present turned out, the most up-to-date and finest piece of mechanism ever offered the public in the shape of a rifle, and I think I voice the sentiment of many of Mr. Savage's friends in asking if it is not possible to produce something like a 30-40. What do you say, readers of RECREATION?

I believe also something was said in a recent issue of RECREATION about Mr. Savage turning out a 22 caliber rifle. I am only waiting to get hold of one.

In praising the Savage, I do not mean to disparage the Winchester, as long and constant use has certainly proven their claim for merit. I think the 30-40 the best gun ever made by the Winchester people; it will do business in any country, and on any game.

It is to be regretted that so many of your contributors talk through their hats, as, for instance, in the matter of the power of smokeless rifles. Several times I have noticed articles from men claiming to be able to shoot through trees 3 feet thick. Coming down to facts, I have tried several times, with both Winchester and Marlin 30-30's to shoot through an oak 7 or 8 inches thick, but have not been able to do so. Should like to get hold of some of those guns that will shoot through 3 feet of live timber, or a grizzly lengthwise. I have seen the 30-30 bullets, as well as the .303 Savage, stop in blacktail deer.

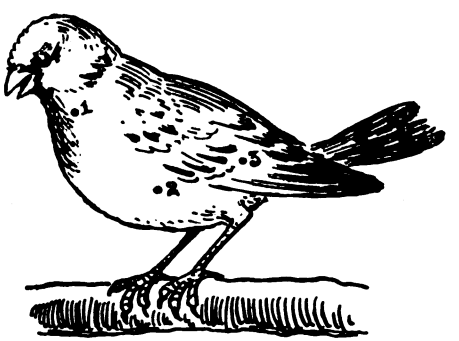
Why don't the Winchester people make a 22 rifle standard with the 30-30, shooting only one kind of cartridge; i. e., the same kind of gun except in caliber? This gun would be something that a hunter could fix up with Lyman sights, or with telescope, and be proud of. I think the 22-7-45 an ideal cartridge for anything under deer, and never want a gun to shoot more than one size cartridge. If the eye and gun are trained for one cartridge, they will not shoot the same with another size. I want to know just what I am doing when after game, without stopping and figuring on the cartridge used. Should like to hear from others on this point. That is the trouble with the Colt 22. It shoots too many different cartridges. So does the Marlin 22.

I believe one trouble with the Marlin is that the cartridge chamber is too small. I was once out with a friend who had a 30-30 Marlin, and all went well until a bunch of 30 or 40 antelope came by within 25 steps, on a dead run. Then his repeater failed to repeat. He didn't, as he repeated many objurgations, backward, crossways, and in every conceivable style. It was enough to make a hunter's blood boil to see those antelope go by with never a shot. I was about 500 yards away and seeing the air grow bluish in his direction, hastened over and found him dancing around like mad, vowing vengeance on everything bearing a Marlin mark.

F. Q. Rutherford.

A MINIATURE SPARROW GUN.

I have a 22 caliber Davenport rifle, 1891 model, which I made into a shot gun for sparrows. I have shot 25 already. I bought a 22 Winchester rifle barrel, 1873 model, for $2, with sights. It happened to be a smooth bore. I rechambered it for the Winchester 22 caliber center fire, and reload with number 12 shot. I can kill a sparrow at 10 or 12 yards every time. I use a 32 center fire shell for powder measure and shot, 8 grains of powder, about ⅛ ounce of shot. I made a new block for center pin and extractor, fitted the barrel to frame, and thus have a 22 caliber rim fire rifle or a 22 center fire shot gun, 2 barrels to one stock. I made my own reloading tools, so I have a rifle



A GOOD PATTERN FOR A 22 SHOT GUN.

and shot gun and tools at a total cost of $10 and 3 days' time. Everybody who has seen it pronounces it O. K. I can shoot 100 shots at a cost of 20 cents and get 80 birds. I observe the game laws.

I enclose target made at 11 paces with a 22 Winchester center fire shot cartridge, 8 grains of black powder and ⅛ ounce of shot, about 140 pellets. The weight of the rifle is 4½ pounds; weight with smooth bore barrel 6½ pounds. Length of shot gun barrel is 23½ inches; of rifle barrel 22 inches.

I made a recapper out of 10 cent gas pliers. I use tissue paper for wadding. The penetration is so hard that the shot go 1-16 of an inch into pine boards. Mr Barlow, of the Ideal Tool Company, said the idea is all right. Notice the 3 shot in the bird. This gun is just the thing for boys. I will try for a record at sparrows this year. I have put away my d. b. shot gun; have no use for it.

Chas. Vitous, Sutorville, Pa.

WHAT THEY SAY TO PETERS'.

Harrisonburg, Va.

The Peters Cartridge Co., Cincinnati, Ohio:

Dear Sirs—I see you and the publisher of RECREATION are having a dispute about a criticism of your shells. I, as one of your friends, am sorry to see this. It is a short sighted policy on your part. The criticism was not severe; it was only the kind that would bring your friends to tell of the good qualities of the Peters' shells. I hope to see you come out in a dignified way and work with RECREATION for the elevation of sportsmanship to a higher plane. You have made a mistake, and the sooner you discover it the better.

Yours truly, E. J. Carickhoff.

Kensal, N. D.

Peters Cartridge Co., Cincinnati, Ohio:

Dear Sirs—Seeing you are getting quite lippy about brother C. G. Radcliff's letter in RECREATION, would say that he is O. K. in his statements. Have used your cartridges about 18 months and find them unsatisfactory in every way. Your getting so lippy is going to cause a big decrease in your business. Hoping this will find you ready to commit suicide, I remain, with a handful of your cartridges to sling in the lake, Yours truly, S. K.

AN AID FOR NEAR-SIGHTED RIFLEMEN.

For the last 10 years I have been obliged to wear glasses when reading or doing fine work. I can see at a distance as well as ever, but when shooting a rifle the blurring of the rear sight bothers me. As I have learned many things from RECREATION I venture to ask for suggestions on this point. There must be many sportsmen who have the same trouble, and some who can tell me how to overcome it.

R. Alexander, Minneapolis, Minn.

ANSWER.

A good telepscopic rifle sight will give the aid you require. It brings the object aimed at and the sighting apparatus all in the same field and at one focus. Hence the object is clearly seen. The wires for sighting are sharp and distinct, and there is no strain on the eye. The telescope shows a magnified image of the object, and one can aim just where he wishes, whether on the eye or the ear, or any other part. Many men upwards of 70 years of age are still indulging in rifle practice with the aid of a rifle telescope, who would not even try to shoot if confined to other sights. I was recently shown a group of 10 shots, made at 200 yards by a man of 75 years of age. All the shots were in a 2-inch circle.—EDITOR.

SMALL SHOT.

It is a pleasure to note the success of the Ideal Co when actual trials demonstrate the superior qualities of their products. I see they advertise their new straight line capper and de-capper for the first time in November RECREATION. I know

by actual use that this little tool, taken in combination, is the best implement in the market for its purpose, and that reloaded shells are as sure fire as new ones after coming from this machine. Another little tool, not yet mentioned in RECREATION, that I highly appreciate, is a resizing die for paper and brass shot shells. The thousands of shells now thrown away after the first fire at the trap may be resized with this die and reloaded a number of times to advantage. So reloaded, they are just as good as at first. I have been experimenting in reloading shells since 1898 and could tell many ways of reducing the cost of ammunition without impairing its effectiveness.

S. L. Warner, Still River, Conn.

I can tell J. S. Miller, Jr., something about the Parker gun. I never used a 16 gauge, but the 10 and 12 gauges are all right for shooting qualities, durability and workmanship. For penetration they can not be beaten by any gun. I have owned 14 different makes of guns and I consider the Parker the best of all. I used a 10 gauge $75 grade Parker 6 years and made some exceedingly long shots with it. Then I bought a $100 grade hammerless, 12 gauge, 8 pound, full choke, and am now using it in the field and at the trap. I use U. M. C. Club shells with 3¼ drams Orange extra No. 3 F. G., 1 card and 2 thick felt wads, 1¼ ounces chilled shot No. 6, and card wad on top well crimped. If Mr. Miller buys a Parker of any gauge he will be more than well pleased with it.

Humphrey Groesbeck,
Hoosick Falls, N. Y.

Mr. Miller, who writes in December RECREATION, will make no mistake if he decides to buy a 16 gauge Parker hammerless. Of all the guns I have used, and they are many, none suits me so well as my little Parker. For duck shooting it has always proved as effective as the 10 and 12 bores of my companions. For field and brush shooting nothing is nearer perfection than a 6½ pound, 28 inch barrel, 16 gauge Parker, loaded with 2 or 2½ drams of powder and one ounce of shot. The gun is a marvel of workmanship and durability. Try one, and in spite of the birds you may at first lose through lack of confidence in the little weapon, you will be convinced that there is nothing better. B. F. Cogswell, Jr., Flatbush, N.Y.

I recently tested my gun, a Richards double barrel, with different kinds of powder. I fired 3 shells loaded with DuPont smokeless powder, 3 with Nitro Club, 3 with Winchester powder and 3 with Laflin & Rand smokeless. The first 3 trios were factory loaded shells, 3 drams powder, 1 ounce No. 8 shot. The last were loaded by myself with 2 drams Laflin & Rand smokeless and 1 ounce No. 7 shot. That load put 14 more shot in a 12-inch square at 35 yards than did any of the other loads. At the same time it drove them deeper. Have been using Laflin & Rand a number of years and in different guns. It has always given the best satisfaction and is the most cleanly powder made.

Geo. F. Kunkel, Nazareth, Pa.

I recently saw an inquiry in RECREATION in regard to Laflin & Rand powder for small charges in the 30-30. I have a 30 Winchester carbine and use a charge of 12 grains Laflin & Rand sporting smokeless rifle powder and the 157 grain Ideal bullet, 9 parts lead to one of tin. This charge has given the most satisfactory results on target at 50 to 200 yards and I find it extremely accurate on small game up to 500 yards. It was first used by Paul Becker, the well known rifle and revolver shot of San Francisco, Cal. With it and a Winchester carbine he won the military medal of the Columbia pistol and rifle club in 1900. Mr. Becker invented and uses a copper front sight with a Lyman combination rear, which I have found a most excellent thing.

Walter Wuerschmidt, Las Cruces, N. M.

I have a few words to say for the benefit of the readers of RECREATION in regard to the Peters ammunition. I think it is about 30 minutes behind time. I was out quail shooting the other day and never made so many misses. I was using Peters semi-smokeless and Peters smokeless, and several missed fire, you can imagine how I felt toward the Peters people when I had it dead on a quail and had the shell miss.

If they can't make shells that can be relied on, they would better not make any. I shall never buy any more of them, if they sell them for 20 cents a hundred

Perry R. Mills, Middletown, N. Y.

There is no better ammunition than U. M. C. Our gun club uses their cartridges exclusively. I broke 29 Blue Rocks out of 36 last week. We shot 24 first and I broke 17. Then we shot 12. I broke the 12 straight and I don't know how many more I could have broken. I used U. M. C. Club shells loaded with Orange Extra powder, 3 drams, 1 ounce of number 6 shot, and I did this work with a $50 Parker hammerless. We recently had a contest, 8 men on a side. All of us except one used U. M. C. Club shells. The 8 men broke 172 Blue Rocks out of 200.

L. H. Kimmel, West Point, Ill.

I use ordinary vaseline to keep my rifle barrel bright. The various arms companies advise against the use of vegetable oils in guns on account of the acids they contain. I wipe the barrel thoroughly with dry and greasy rags until no dirt shows on a white cloth. Then grease well, stick rag in end of barrel and set away. I use a Stevens 32-40 Ideal rifle and like it. I reload my shells, using Winchester '94 model tools. It costs me ½ cent to reload a shell that originally cost 3 cents, factory loaded. How is the striking power of projectiles calculated?

P. H. Manly, Gilmer, Wash.

It is astonishing how many best guns there are in the world. Given any make, any caliber, any twist, some crank is ready to champion it. I have a 45-70, and it is without doubt the best gun in the world. Have also a Stevens 32. With the right man behind it—not me—it easily eclipses all other rim fire rifles. Have also an old 6-foot shot gun. It is the longest gun of its length in the world. And of course my flint lock muskets outclass all which are not their equal or superior.

F. A. G., Woodstock, N. B.

An Ithaca gun should suit Mr. Burg. They are close, hard shooters, durable and exceedingly reasonable in price. I have one, a 12 gauge, 30 inch barrel hammerless, which I use for duck shooting. It is just the thing for that purpose. I like RECREATION all the better since the Marlins are out of it. Their ad always reminded me of a gun I bought of them and I want to forget it.

J. W. Fryer, Kansas City, Mo.

I would say to A. G. Burg that I have used most makes of American guns and some foreign ones.

Any American gun of medium grade will do good work. I prefer the Lefever. The H grade at $33 is reasonable in price and will shoot and wear better than any other gun I know of. The compensating features are superior and the material and workmanship are the best.

W. H. DeGroff, Auburn, N Y.

I have found the following a good way to remove lead from a rifle barrel. Have the barrel perfectly clean and dry. Cork one end, fill half full of mercury and let it stand a few minutes. Then cork the other end of the barrel and reverse it for the same length of time. The lead will unite with the mercury and can be readily removed. Wipe barrel well, first with a dry, then with an oiled rag.

Wm. I. Morton, Russellville, Ky.

Those who want a good gun for a small amount of money should buy an Ithaca. I have a 10 bore Ithaca hammerless, 32-inch barrels, weight 10½ pounds. I doubt if a harder shooting gun could be found. It put 6 No. 6 shot half way through a grouse at 85 paces. Nine times out of 10 it will drop a duck at 12 rods. The action is perfect.

C. H. Platt, Milford, Conn.

Will some readers of RECREATION tell me what they think of the Parker hammerless gun? I have just bought a 12 gauge $80 grade Parker, with 32-inch barrels. Either barrel will put 275 pellets No. 7 shot in a 30 inch circle at 40 yards. Will it prove a good duck gun?

A. C. Rawson, St. Louis, Mo.

Is the 40-82 Winchester a good rifle for large and dangerous game? Is the 30-30 a more powerful weapon? Are there soft point 40-82 bullets on the market, and do you recommend them?

M. A. Porter, San Francisco, Cal.

ANSWER.

I can cheerfully answer yes to all 3 of your questions.—EDITOR.

Will RECREATION readers kindly inform me which is the best shot gun for all around work? Is the Remington better than the Ithaca? Is the Remington, Grade K, a good gun? I don't care to pay more than $35. How do the '73 and '90 models of the 22 caliber Winchester rifle compare in range and penetration, and which is the best target rifle?

Harrison King, Jacksonville, Ill.

Replying to the subscriber who asks what is the exact difference in bore of a 28 gauge and a 44 caliber:

The actual diameter of the 28 bore gun is .550 of an inch. Of the 44 caliber, and bv this is usually meant the 44 Winchester, .424 of an inch. This leaves a difference of .126 of an inch, practically ⅛ of an inch, ⅓ of an inch being .125.—EDITOR.

To remove lead from a rifle barrel I use brass wire cloth of about 40 mesh, cut in 1½-inch squares, and a wooden cleaning rod. I have used it 10 years and find it perfect. It does not injure the rifling. R. L. Schlick, Milwaukee, Wis.

What are the especial good points of the '95 model Winchester 30 caliber? How does it compare with the 32-40 as a deer and bear gun?

C. R. Benjamin, New York City.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

CHUCKOLOGY.

Hoosick Falls, N. Y.

Editor RECREATION:

The woodchuck is an industrious worker, as one will see by inspecting his home. In excavating his burrow he will throw out flat stones 6 to 8 inches long, boulders weighing 10 pounds and earth enough to fill a barrel.

His home, or main hole, enters the ground at an angle of about 45 degrees and extends 7 to 10 feet before reaching the nest; and there may be several other shafts, or blind holes. These are usually 8 to 20 feet from the principal hole. There is no earth or stone thrown up around them, the entrance is almost perpendicular and is usually overgrown with grass and weeds. It is evident that the earth and stone from these shafts is carried out through the main hole.

It is these blind holes that annoy the farmer. Horses and cattle sometimes step into them and are severely injured. Last summer, while stalking a 'chuck, I stepped into a blind hole, going in the whole length of my leg. My rifle went in one direction, my hat in another and I saw a brilliant display of shooting stars. I lost my 'chuck, but secured a game leg.

A deserted hole can be detected at once by the cobwebs covering it and its general appearance of disuse. The woodchuck is a social animal, as is proved by the trails from one hole to another. Occasionally a hole seems a favorite resort, as there are many trails leading to it; then again there is only the trail from a field of clover or a convenient orchard, or to the blind hole. Farmers tell me that the woodchuck is almost as destructive in a corn field as a raccoon, and that it also eats squash, beans, turnips, and in fact all kinds of garden truck.

The 'chuck is game too, and will whip any dog of his size and weight. Last August while Major Shorkley was hunting on my preserve he heard a furious barking; it was at least half a mile from any house. On looking over a hedge he saw a fox terrier between a 'chuck and its hole. They were having a lively time. The dog would make a rush for the 'chuck and the latter would crouch down and snap his teeth. When the dog retreated the 'chuck would rise until again attacked. After watching the battle some time the Major called off the dog and shot the 'chuck.

One evening the Major came in my office and took from his pockets 16 tails and laid them on my table. On looking them over I noticed that some were short and others long. I asked him how that happened. "Oh," he said, "they are just as I shot them." I did not understand. "Well," said he, "go with me tomorrow and I will show you." I went, and am glad I did, for I never should have believed him had he attempted an explanation. As we were stalking through a meadow, the Major stopped suddenly and pointing to a stone wall, exclaimed, "There! don't you see?" I raised my 'scope and saw a large 'chuck standing on his head like a circus dog, his tail swinging in the air like an inverted pendulum, evidently to attract attention. Crack went the Major's 25-36, off went the tail and into his burrow went the 'chuck. He had lost his flag but saved his bacon. The Major counted one more trophy and all were happy.

One unacquainted with *Areytomys monax* would not think him capable of devising schemes for circumventing the hunter and saving his own life. Mr. J. F. Rabbeth tells us that the woodchucks in the Connecticut valley will unhook their tails and throw them at him in order to save the rest of their anatomy.

Considering the number shot on my preserve it may seem surprising that they are not exterminated. Yet last August I counted 25 holes on ½ acre and on another farm 30 on one acre. We will suppose 10 of these contains each a mother 'chuck. Naturalists tell us that sometimes they breed twice a year and have 4 to 6 at a litter. I will call it 5, which gives us 50 infant chucks. We will deduct 10 for casualities and have 40 left. Did ever one man kill 40 in a 40 acre lot?

The 'chuck goes early into winter quarters loaded with fat, pulls in his latch string and sleeps until early spring.

Twenty years ago the woodchuck was hardly counted as game worthy of attention. Now such men as Baker, Rabbeth, Shorkley and Leopold talk of their 25-36 and 32-40 'chuck guns as they used to of their 40-70 or 45-90 big game rifles.

When a man thinks it requires no skill to kill a woodchuck he is off his reckoning. From my observation a 25 or 32 caliber is none too large. It should be sighted for 100 yards; then one can hold over or under. Most 'chucks are shot this side of 75 yards; but in an open meadow it is almost impossible to get within that distance before they dive into their holes.

I am told by farmers in this vicinity that pot hunters are shooting woodchucks for the cheap restaurants in New York. They are boiled or pickled and served with beer at the Raines law hotels. I do not doubt it, as the meat is equal to mutton in life-supporting elements, and the animal is as much a vegetarian as is the Belgian hare. I was deeply interested in an article I read the other day by a Mr. Donald. He realizes the skill it requires to place a bullet in a 'chuck's head or neck at even 50 yards. His stalking cane is almost identical with Dr. H. A. Baker's which is of metal and telescoped. In it he can carry a ramrod and a wash for his throat in case it should become dusty. Medicus.

WOLVES EAT UP A RAILROAD TRACK.

Portland, Ore.

Editor RECREATION:

About 1872 one of the first railroads of the Northwest was built in the Territory of Washington, from Walla Walla to Wallula, along the banks of the Walla Walla river, and following the general line of what is now the Oregon Railway & Navigation Company's road between those points. The road was a primitive affair, and was built, owned and operated by Dr. Baker, of Walla Walla. It had no Pullman cars, chair cars or buffet cars, and the day coaches were mostly platform or flat cars. Instead of having a right of way the road had permission to go through the fields of the farmers; consequently the road was not a rapid transit one, as the train hands had to get off and lay down the rail fences and put them up again after the train had passed through.

The road-bed was constructed by laying cross-ties 6 or 8 feet apart, and on those laying wooden stringers for rails. The heavy traffic over the road caused the rails to wear in spots, so that train wrecks and smashups were of daily occurrence. These were not serious, for when the train crew saw a wreck coming their way they would hop off and let it wreck.

The annovances, however, soon became detrimental to the interests of shippers, so the owner had to devise some means of overcoming the difficulty. Rails of standard railroad iron were out of the question, as they had to be shipped "the Horn around" and freighted by wagon quite a distance. Strap iron could not be had, an the doctor, with Yankee shrewdness finally hit upon the happy idea of substituting rawhide for strap iron. Cattle were plentiful and rawhide cheap, so the doctor soon had his track layers at work putting the rawhide on to the wooden stringers. The rawhide soon became dry and as hard as iron, and answered the purpose admirably during dry weather.

The winter succeeding the laying of the rawhide track was a severe one for that part of the country. The snow laid on the ground several weeks. The wolves were driven from the mountains by the deep snow and skirmished for a living as best they could in the valleys. When the snow began to melt it softened the rawhide rails, and the hungry wolves soon found the track. When spring came and the snow had melted, the wolves had eaten up the railroad track from Walla Walla to Wallula. C. E. Oliver.

THIS ONE DID NOT EAT MEAT.

Wellsville, N. Y.

Editor RECREATION:

What Mr. Horace W. Ward, of Bath, Me., says in RECREATION about squirrels eating meat is a surprise to me. During the summer of 1894 a red squirrel lived in our family. He was a great favorite, a perfect pet, and allowed us to handle him in the most familiar manner. He never offered to bite, and never seemed as happy as when being rolled about. He had the liberty of the house, and was only shut up at night to prevent harm befalling him. I had every opportunity to study his habits, and as he nearly always took his dinner at the table with the family, perched on the back of a chair, I learned what kinds of food he liked best; also what kinds he would eat if he could not have what he most wanted. I tried to get him to eat meat, of all kinds that we used, both fresh and salt, cooked and raw, but could never get him to taste any. His favorite dish was full cream cheese, of which he would eat a ¾-inch cube each day. He was fond of nuts of all kinds, but preferred butternuts to all others. We had a large stone near the kitchen door, and a basket of these nuts always sat there. When I would sit down by the stone and take up the hammer, the squirrel would go to the basket, get a nut, and lay it on the stone for me to crack, he sitting just out of reach of the hammer waiting for me to crack the nut. When I had done so he would extract the meat and sit up and eat it. Then he would repeat the operation until he was satisfied. He would eat nearly all kinds of vegetables, but seemed to prefer horse sorrel. He went daily to the wall under the house, pulled out small pieces of dry mortar, ate them, and seemed to relish them.

Warm days in the summer, when I sat in the shade to read, his usual place was on the arm or back of my chair. We captured him when he was quite young, and he never knew what fear was. He would play hide and seek with the members of the family, and when he was found he would frolic around in great glee for a few moments,

then hide again, disappearing so suddenly as to make it impossible to follow him. His favorite hiding places were the loops in the lace curtains near the top. One morning late in the fall he disappeared. We never knew whether someone stole him or killed him. Wm. J. Whitwood.

NOTES ON PHEASANT CULTURE.

I am pleased to see the growing interest manifested in the various species of pheasants. Unquestionably the pheasant is one of the most beatuiful and useful game birds ever introduced into our country. They are easily propagated, and in the wild state will take to the haunts of our quails and grouse, where they readily thrive on the many insects, berries and seeds. They stand our climate admirably, and even do not seek shelter when the thermometer registers 20 or more degrees below zero.

In confinement the common Chinese or English hen will lay 40 to 50 eggs a season, and rarely sits. Now and then a pheasant hen will hatch and raise a brood of young in confinement. I have one that has raised a brood 2 successive seasons. The Cochin bantam is the best mother. A good Cochin bantam will raise 2 broods a season.

I have been most successful with early hatches. By time hot weather begins the chicks are beyond the ravages of the louse, which, in my experience, has been the most serious obstacle to contend with. Even this has been reduced to a minimum by the judicious use of disulphide of carbon.

For feed I have tried hard-boiled eggs, maggots and the various other things recommended, but have realized the greatest success with Spratt's patent game meal and prairie meat crissel with greens. These, judiciously fed, will never cause indigestion or diarrhœa.

Coops must be kept clean and well ventilated, and should be moved to a new piece of lawn every day.

The English and the golden pheasant are the most easily raised, but all inexperienced breeders will have a fair-sized pheasant cemetery.

I look forward to the day when, through the efforts of our most aggressive editor, the many kinds of hogs will have been stripped of their bristles. Then we, true sportsmen and breeders, can, without exposing them to immediate destruction, populate our fields and forests with this king of all game birds.

Louis M. Bachhuber, M.D.,
Mayville, Wis.

TWO LOONS.

I noticed in January RECREATION an account by W. F. Aulds, of the sinking of a loon he had shot. In '89, when living in Minnesota, I shot a loon with a 44-40 Winchester, at about 80 yards. The bird drifted toward shore, belly up, until it was so near I could see blood on its breast. I went a short distance away and got a boat, but when I returned could not find my bird. That night there was a severe storm, and the next morning the loon was found washed ashore.

In April, '85, when the ice began to break up in Lake Sally, near Detroit, Minn., a crack opened about 500 yards from shore. A loon alighted there, and I fired at it with a 40-70 Ballard rifle. At the first shot the bird turned on his back and floated perfectly motionless, but before one of the men could walk out on the ice the loon disappeared. Several of us then pushed a boat out on the ice, and the loon was finally killed with a small Winchester. We found the first shot had cut off the bill close to the head, the shock being sufficient to stun the bird for a minute or more.

The loon is not hard to shoot, if you can fire when he is not looking toward you or has not been alarmed. He will dodge a bullet if on the alert, and I could never kill a loon with shot under any condition.

C. G. Brackett, Millis, Mass.

You are in error about the loon being able to dodge a bullet. That theory has been sucessfully controverted many times. —EDITOR.

MORE COON CHATTER.

I have hunted 'coons over 30 years and am positive that they have a cry or call. I first heard it when a small boy. Taking me out one day, my father set a line of traps for coons, baiting them with perch heads. He bade me note their location, saying I might take care of them. A severe storm kept me from looking after the traps until the morning of the fourth day. Then my brother and I started out. When within 50 rods of the first trap we heard a 'coon call. We got to a knoll whence we could see the animal, and we watched him fully 5 minutes. He was caught by the toes of one forefoot and was sitting on a little pile of stuff he had scraped together, calling. Since then I have heard the call scores of times.

B. W. Farr, Erie, O.

I can add my testimony to Mr. F. W. Allard's that the peculiar noise which some maintain to be coon chatter is really the call of the small barn owl. Only a few nights ago my hired man came down from his room and insisted that he heard a 'coon calling near. I went out quietly, listened, and presently heard the familiar sound. Going to the back of the house I saw an owl sitting on the eaves-trough and

chattering softly. I called the man out to listen and convinced him that what he had always thought coon chatter was only owl chatter. A. D. Milford, Ont.

A CUMMUTED SENTENCE.

I recently delivered to Curator Beebe at the Zoological Park, a live American barn owl. A gentleman brought the bird to me with the request that I kill it for him as he wanted to have it mounted. Said I, "I would no more kill it than I would my favorite dog." I happened to have a mounted owl that my brother shot long years ago. Placing it near the live bird, I said, "Mackeown, which would you rather see, this live bird transformed into a dusty, disfigured mummy like that, or see him on exhibition at the New York Zoo as perfect as nature made him?" "Give him too the Zoo," replied my friend, "and when I want to see him I will go there." But if an owl had been brought to me 2 years ago, before I joined the L. A. S., it wouldn't have lived 10 minutes. This owl was captured by an engineer of the Erie railroad in the cab of his engine, early one morning. The engine had been standing on a siding and the owl had taken refuge in it. Credit the bird to Fred W. Mackeown, Rutherford, N. J.

C. D. Brown, Rutherford, N. J.

THESE GROUSE DRANK.

Five years ago last October I went to West lake to shoot ducks. Before light I had my decoys in place. It was a clear, mild morning and while waiting for the ducks to move, I lay back in the blind and listened to the song birds in the woods behind me. Just as the Eastern sky was growing red I heard the whirr of a grouse. The bird passed almost over me and lit on a branch of a dead tree lying in the water 80 or 100 yards from me. Presently it was joined by a second grouse. For a few minutes they remained perched 5 or 6 feet above the water. Then, hopping from branch to branch they reached the level of the lake and drank. At least they went through all the motions. They dipped their bills in the water and lifted their heads just as a barnyard fowl would when drinking. Then they returned to the upper branches and looked about. I think they saw my decoys for they straightened up and sat as motionless as sticks. Finally one flew, sweeping around just outside the decoys. As it passed I fired and killed it.

A. D. Milford, Ont.

NATURAL HISTORY NOTES.

Mr. Henry A. Morgan's account of a friendly grouse in the Natural History department of RECREATION, reminds me of a somewhat similar incident which I witnessed a few years ago. One day when our family were eating dinner we were all much astonished at an object which came through the large dining-room window with a tremendous crash and dropped on the floor near the table. We soon found the object to be a full-grown grouse, stone dead, with a piece of the window glass sticking in its back.

It had probably been pursued by a hawk, and in its haste to escape such a fate it came to its death in an entirely different manner.

The next day, while working about 500 yards from the house, my brother noticed a hawk in pursuit of a grouse, which flew to the same window and lit on the sill, remained there a few moments and then flew away.

Francis Little, Lakeside, Wash.

My neighbor, E. A. Frost, has a ruffed grouse whose mode of life is so different from that usually followed by *Bonasa umbellus* that it may be worth writing of. It was first noticed in the woods near the village by a boy who saw it crawl under a low bush. He caught it and was surprised that it made no resistance and seemed well content to be handled. It was put into a shed with the fowls for a few days and it ate with them as if fully accustomed to their ways. Escaping one day from the shed it stayed near until discovered, when it was again easily caught and brought to the village for Mr. Frost, who is well known as a fancier. It was provided with good quarters for the winter in a roomy cage in the rear part of Mr. Frost's place of business, where it seems satisfied with its good fortune in not having to rustle for its own feed. The bird shows a great liking for sweet apples, in connection with its usual grain.

F. S. Morgan, Milton, Vt.

A strange thing happened recently almost in the center of our village, and close to a church, where people were assembling for service. A ruffed grouse came sailing along and hit a wire netting fence. It struck with such force that the head was severed from the body. A. Andrews, Fournier, Ont.

Wife—I see the doctor has stopped calling at Smith's, across the way.

Husband—That's strange. I don't see any crape on the door.—N. Y. Herald.

Teacher: What distinguished foreigner aided the Americans in the revolution?

Small Boy: God.—Exchange.

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ANNUAL REPORTS OF THE STATE DIVISIONS.

MINNESOTA.

In the year just closed the League has secured some gratifying results in Minnesota. With the active assistance of the Herron Lake Gun Club, a large number of petitions were sent out last winter asking the Legislature to prohibit the sale and shipment of all game, including ducks, within the State. We found the sentiment in favor of such a law stronger than we had expected. Within a few weeks, we had secured about 6,000 signatures from all parts of the State. The thanks of all true sportsmen are due to Senator Meilicke, of Windom, who introduced the bill in the State Senate, and gave it his constant attention until it had received the Governor's signature. So strong was the influence of the League and its friends that the bill passed with little opposition. This bill has relegated the exploits of the market hunter in Minnesota to the realm of history.

I can not too highly speak of the efficient work done for game protection and for extending the influence of the League by Vice Warden Henry A. Morgan, Albert Lea; Rear Warden C. M. Morse, Winona, and Secretary-Treasurer Albert R. Bixby, St. Paul.

The thanks of the League are also due to this county, and confidently expect favor- State Game Warden S. F. Fullerton for his zeal in prosecuting law breakers and to Dr. Justus Ohage, Health Commissioner of St. Paul.

The Minnesota division has grown from 30 to 300 members within the calendar year and now includes nearly all State officers. We are sending out thousands of circulars, and by the time the next Legislature meets, we expect to be at least 2,000 strong.

The outlook for efficient game protection in Minnesota is decidedly encouraging.

But I regret to state that thus far all the active work has been done by men of moderate means and little leisure. It seems that the men of wealth and leisure might find as noble a field in providing and preserving wholesome recreation for the masses as in providing them with schools and libraries.

The following local chapters have been organized:

Albert Lea. Henry A. Morgan, Rear Warden.

Winona. C. M. Morse, Rear Warden.

St. Paul O. T. Denny, The Buckingham, Rear Warden.

D. Lange, Chief Warden.

The 18th day of July last, I received information that one C. B. Conlin, at Alden, this county, had violated the game law by killing or having quails in his possession. I immediately placed the information in the hands of Deputy Game Warden Louis Kroessin, of this city, who investigated the case, and secured the evidence necessary to convict. July 20th, 1901, complaint was made before D. K. Stacy, a city justice of this city, against C. B. Conlin, charging that on the 14th day of July, at Alden, this county, he unlawfully had in his possession 2 quails. Conlin was accordingly arrested and arraigned the same day. He pleaded not guilty, and had the case adjourned until the 26th day of July, for trial, but when the case was called, pursuant to adjournment, he changed his plea to that of guilty, and was fined $20 and costs, or 25 days in the county jail. The costs amounted to $7.30, making a total of $27.30, which he paid.

Conlin's youth and his plea of guilty saved him from more severe punishment, but the case excited much interest, was widely commented on, and had a deterrent effect. The League was responsible for the prosecution and conviction, which gave it an enviable position and placed it in good standing at once.

The 22d of August, 1901, Deputy Game Warden Louis Kroessin was informed by Claude Judd that F. W. Kahler, Charles Fink, J. E. McGrane and Thomas Clements had gone or were going into the country with sundry dogs and guns, and under circumstances that were suspicious. Accordingly, Kroessin and Judd shadowed them and sighted their outfit in a field in the town of Pickerel Lake, some 5 or 6

miles from this city. Kahler and Clements, with 2 dogs, were in the stubble and were seen to fire a number of shots, presumably at prairie chickens, while Fink and McGrane remained with the team. Owing to the character of the country and general surface of the land Kroessin and Judd were only able to approach to within about half a mile of the hunters without being discovered, as the team, with its 2 attendants and sentinels had been left, accidentally, of course, on a high knoll. After witnessing the shots, Kroessin and Judd drove up and placed the outfit under arrest. The 24th of August complaint was made before Peter Finton, village justice of Alden, charging these 4 defendants with an attempt to kill one prairie chicken, at the time and place above referred to. They were arrested and arraigned the same day, pleaded not guilty, demanded a jury trial, and the case was accordingly tried the 27th of August. They employed 2 attorneys and fought the case stubbornly, but a jury of 12 representative men found F. W. Kahler and Thomas Clements guilty. Fink and McGrane, who had remained with the team, were released. August 30th, pursuant to adjournment, the defendants Kahler and Clements were again in court, to receive judgment. They were each sentenced to pay a fine of $20 and one-half the costs of prosecution, and in default of payment to be imprisoned in the county jail of this county for the term of 30 days, or until such fine and costs were paid. The costs alone amounted to $71.06. They refused to pay and were committed. The constable delivered them to the sheriff, who received them about 1 P. M. Kahler, however, was permitted to visit his invalid wife before going behind the bars and somehow lost his courage and concluded to appeal; although it was his declared intention to go to jail and seek a release by *habeas corpus* proceedings. Clements went to jail, but about 6 P. M. lost his courage and also appealed, rather than await the slow course of *habeas corpus* proceedings. The case is now pending in the district court.

This case has done more for game protection throughout this section than any case of its kind yet brought to my notice. The defendants received no comfort or consolation whatever from anyone outside their immediate friends, and the universal verdict is that it served them right. Kahler and Clements are saloon keepers and men of means, and the former had long been suspected of setting the game law at defiance. The case is unique in several respects, especially because the alleged offense was committed on land owned and occupied by the father of one of the parties, Mr. Fink, and because they were convicted of an attempt to violate the game law. At the request of the game warden and the county attorney I took charge of the case from the beginning, and in the end had the satisfaction of knowing that in this county, at least, the game laws can be enforced. I should have stated in the foregoing report that Warden Kroessin captured one gun, which was confiscated by the State Board of Game and Fish Commissioners, but he was unable to secure the dogs and other guns.

Taken all in all it was an expensive piece of sport, and no self-respecting person, having regard for his reputation and his purse, will care to duplicate it.

Henry N. Morgan, Rear Warden Albert Lee Chapter.

MICHIGAN.

I am enclosing a letter and a report from our State Department, which will give you an idea of the amount of work being done. As Mr. Morse says, sentiment in many localities has been so changed, thanks to RECREATION and the L. A. S., that a violation is almost sure to be followed by conviction. My work has been along these lines. I have used all the influence I have had to help the State Department. This is an already well organized machine, and I have let them have the credit for everything. They are entitled to it, but they know our organization will fight them, too quickly, if they don't do the right thing.

Through Mr. Morse I have secured the appointment of several L. A. S. men as deputy State wardens. Many of them are not known among their best friends to be wardens, and will not be so known until the right time comes. Then some violator will be made an example, and a moral lesson taught, which has a great influence in our cause. Our laws as they now stand can be enforced, and they consequently meet the approval of those who are employed to enforce them.

The first year I was a member of the League, the State game department had no use for us. I Overcame that feeling, thanks to you and RECREATION, and soon let the politicians know what we were after, and what we were going to get. We now work in perfect harmony and are accomplishing something. My aim has been to get good men appointed and then support them. In return I am consulted and know what is going on. They desire this support and give something in return for it.

We have good laws, great improvements over the old ones. We are enforcing them; we are educating people to help enforce them. The men we are especially after are the game hogs and market hunters, the worst class of violators in the world. With our markets on all protected game closed at all times, and the deer limit reduced to 3, transportation out of the State prohibited,

open season shortened, spring shooting prohibited, we have, with the aid of the Lacey law, got the thing pretty well cinched.

RECREATION has done more to bring about this result in our State than all other elements, because it has moulded public opinion and made it possible for a few men to accomplish much. Violations are decreasing and the percentage of convictions to arrests is increasing.

J. Elmer Pratt, Chief Warden.

The letter enclosed by Mr. Pratt is as follows:

Co-operation of your order with State officers will certainly bring about better results than any other procedure, and since we have started along these lines the results are apparent. In many localities where 2 or 3 years ago it was impossible to get a conviction we now have the sentiment right, and violators are promptly dealt with. What is better, in these localities few violations occur.

I have pleasure in appending herewith the results for the year just closed, and in this connection I desire to say that I have had much valuable information from you and other members of L. A. S., which has resulted in running down some of the worst violators. I fully appreciate your efforts and sacrifices for game protection, and thoroughly concur with your ideas for co-operation.

Complaints investigated	1,774
Prosecutions begun	848
Convictions secured	634
Acquittals	20
Dismissals	50
Fines and costs imposed	$7,077.56
Prosecutions for violations game laws	318
Prosecutions for violations fish laws	529
Prosecutions for resisting a warden	1
Number of seizures reported	216

Seizures consisted of nets in illegal use, immature and contraband fish, which were disposed of as ordered by the court.

Grant M. Morse, State Warden.

UTAH.

Our State law for the protection of game, fish and song birds is now in fairly good shape, although not quite so good as it could be. Some good amendments and provisions were enacted by our State Legislature of 1901, chief of which is the abolishment of spring duck shooting, the open season now being October 1st to January 15th following, with a limit of 40 birds a day. This is not quite as it should be, but is much better than formerly, when one to 400 birds a day were killed by some so-called sportsmen and the market shooters. Elk, antelope and bighorn still have an unlimited close season, and the killing of deer is limited to 2 head, with open season October 15th to November 15th; but I am sorry to say that marketing and sale are still permitted, which should not be.

The selling or offering for sale of brook, rainbow, native mountain and grayling trouts, and landlocked salmon taken from any streams or waters of the State was abolished, and power given to the wardens and deputies to search, with or without warrant, for contraband fish or game. This gives these officers a chance to enforce the law.

The shipment of all kinds of game and game fishes out of the State is prohibited. Quails and all kinds of imported game birds still have a continuous close season, together with all kinds of song and insectivorous birds. The most important thing I could now wish in our fish and game law is the non-sale and traffic in our game birds and game animals.

The last Legislature made an annual appropriation of $2,000 for the enforcement of the fish and game laws, and there has been less transgression than formerly. There have been some arrests and convictions for violations of the game laws.

League matters of the State are being pushed by Mr. George Pugsley, who reports to me that the outlook is good, with a fair prospect of a largely increased membership. He has sent out a large quantity of League literature, and he thinks he will be able to increase the membership to 200 or more within the next few months. He is confident of securing as members and subscribers to the League, the members of all the gun clubs in the State, besides many other sportsmen who do not belong to any of the clubs.

John Sharp, Chief Warden.

WASHINGTON.

Within the past year I have made 3 arrests and secured 3 convictions for violations of the game laws. I stopped sawmill owners from throwing sawdust in the Yakima river, at Easton, Washington, and compelled the owners of the mill to put a fish ladder in their dam for the salmon to pass up to spawn. I have investigated many other reports, but could make nothing of them.

To-day the game warden and I worked up a case which resulted in the arrest and conviction of a market dealer. He was fined $10 and costs for selling quails.

I have the report of Mr. Frank A. Pontius, secretary-treasurer, Seattle, who states that King county has taken out 1,632 hunters' licenses, every refusal and hunting without being followed by arrest and conviction. Mr. Kelley, county game warden, also rear warden L. A. S., has 31 deputy county game wardens. There is

no sale of game whatever in Seattle, not even ducks, although there is no law against the sale of the latter. The following are the deputy county wardens of King county: C. H. Pike, Cedar Mountain; W. E. Bowles, Black River; S. E. Likes, Fall City; John Hudson, Preston; N. J. Peterson, Peterson's Point, Lake Washington; Thos. J. Humes, Mayor of Seattle; Park McMicken, Seattle; H. B. Orr, Seattle; J. W. Ellis, Agent So. Pac. R. R., Seattle; H. W. Anderson, Reporter of Seattle Star; Frank A. Pontius, Seattle; C. B. Yardell, Reporter Seattle P. I.; David M. Barnes, Seattle; O. P. Bebee, Seattle; L. A. Daniels, Juanita; A. Springer, Seattle; E. B. Bushnell, Orilla; D. Murphy, New Castle; Joe Schlumpt, Traveling Deputy, Seattle; R. Thorn, Jr., Renton; E. B. White, Eumenclaw; S. A. Pelkie, Renton; Charles Nelson O'Brien, Seattle; E. A. Hartley, Columbia City; J. P. Morris, Franklin; J. F. Arnold, Maple Valley; W. F. Hains, Des Moines; J. O. Smith, York; T. H. Westmoreland, Issaquah; Wm. Belond, Seattle; E. H. Emsen, Kent.

As Mr. Kelley is our rear warden, I regard this as League work, notwithstanding the above are county game wardens, he having made the appointments.

F. S. Merrill, Chief Warden.

CONNECTICUT.

Most of the work done in this State during the past year has been in the way of securing better legislation for the protection of game, fish, and song birds. We have been successful along this line. We have succeeded in getting a closed season on all shore birds and web-footed water fowl from April 1st to August 31st inclusive, and have limited the number of snipe, plover, shore birds and rails killed at one time, by one person, to 50. This is a comprehensive and adequate law and practically stops spring shooting. We have stopped the sale of quails, woodcock and ruffed grouse for 2 years, and the transportation of these birds within the limits of this State, except when accompanied by the owner, is prohibited; also, transportation of same beyond the limits of the State. Only 5 ruffed grouse may be killed in one day and only 36 in one year by one person.

The taking or destroying of rabbits, between October 1st, 1901, and October 1st, 1905, with ferrets, is prohibited. We have placed a bounty of $1 on foxes. The trapping, netting, or snaring of game birds is prohibited.

Our new law prohibits the killing of all song birds and insectivorous birds in this State.

The laws in this State have been observed generally much better than heretofore. We have made one arrest. That was for hunting on Sunday, and the party was convicted and paid his fine.

Our League membership has increased this year. We are about to call a State meeting and we expect it to result in a further increase.

F. P. Sherwood, Chief Warden.

MONTANA.

During the past year we have had the first effective work on the part of the State in protecting game. At the last session of the Legislature a law was passed levying an assessment for the payment of the wardens. There are now a warden and 6 deputies in the State, and they are doing the best they can for the protection of game. It was due to the agitation made by the members of the League, aided by others, that this law was made. The law also provides for permanent protection to the antelope, as you know. That was also brought about largely by the influence of the League.

The members of the League are badly scattered, owing to the size of the State, and communication is difficult. I do not know how many convictions have been made, nor how many arrests. Not many of these are reported to me. I have not had half so many complaints in regard to violations of law as in former years.

The League has done great good in the State, and will do still more. The evidence is that game is increasing fast in the forest reserves, owing to the fact that the rangers are under instructions to see that the laws of the State are obeyed.

M. J. Elrod, Chief Warden.

IDAHO.

We have not secured, during the present year, any new laws for the protection of fish and game, although the Legislature passed a new and comprehensive bill, providing for a gun and rod license. It passed both bodies of the Legislature almost unanimously, but the Governor vetoed it, after the Legislature had adjourned. His veto of the bill did much good, as it aroused a great deal of sentiment, and will result in even a better bill at the next session, when I hope and expect to see a law enacted that will provide a license, and limit the number of birds and animals that may be killed, and the quantity of fish that may be taken.

The membership of the League has increased considerably in the past year, and many violations of law have been reported to me, through these members. I have made a number of arrests in the State during the past year, and more than half of the parties arrested were convicted and fined.

Many of our large notices, offering rewards for information that will lead to conviction for violation of the laws, have

been posted in different parts of the State, and have done great good.

T. W. Bartley, Chief Warden.

MASSACHUSETTS.

There have not been many changes this year in the game laws. Absolute protection for the entire year has been extended to wild or passenger pigeons, gulls and terns, with the exception of the great American herring gull, or the great black backed gull, the close season on which is May 1st to November 1st.

The limit on trout is made 6 inches.

The most important move this year was the following: "Whoever willfully and without right pulls down or removes any portion of a stone wall or fence erected and maintained for enclosing land, shall be punished, etc." I secured this law for the purpose of protecting the farmers from the depredations of so-called sportsmen who pull down walls to secure game in hiding therein. This was brought forward to come closer to the farmer and to show him that the real sportsman was anxious to protect him from injury and annoyance; to create a bond of sympathy between them. Heman S. Fay, Chief Warden.

PENNSYLVANIA.

There has been much activity in this State in the way of game protection during the year past. Our last Legislature made few changes in our game laws. They already cover the subject of bird protection thoroughly. The fish laws were thoroughly gone over and revised during last April. Length of trout to be kept was changed from 5 inches to 6, sale or purchase prohibited, except of artificially bred and raised trout, and then only during open season and 6 days following (April 15 to July 31); number to be caught limited to 50 in one day. Open season for all other game fishes except lake or salmon trout was changed from June 1 and January 1 to June 15 and February 15; lake or salmon trout January 1 to September 1. No flagrant violations of the game laws have taken place in this section, for too close a watch has been kept. C. F. Emerson, Chief Warden.

ONTARIO.

In December last I gave Mr. A. E. Ruby, rear warden of Berlin chapter, instruction to prosecute 3 different parties who openly exposed and sold quails and ruffed grouse, in the market of Berlin, in the close season. Mr. Ruby secured a conviction in each of the 3 cases. These convictions have had a great and good effect on law breakers in that locality. I have caught several parties red handed in the act of violating the game laws. I have given them all a good, sharp reprimand, and all of them have promised me never again to violate the laws. In fact, I have their signatures to a paper to that effect, so they know the consequences if I ever get after them again. I expect to send in a number of applications for membership shortly.

C. A. Hammond, Chief Warden.

OHIO.

Our game laws, as now constituted, are ambiguous and full of loopholes. Convictions are hard to obtain. Considering these points, the fact that 178 convictions were obtained from 220 arrests for violations of game laws, and 140 arrests with 96 convictions for violations of fish laws, the fines aggregating $5,391.40, clearly shows vigilance on the part of our game wardens. By the time this reaches you our Legislature will be in session, and an effort will be made to simplify and make more effective our bird, game and fish laws.

Our membership in this State shows an increase of 30 per cent., a healthy growth.

W. E. Gleason, Chief Warden.

OKLAHOMA.

As far as I have heard there was no prosecution in Oklahoma in 1901 for violation of our game laws. There have been some indictments in the federal courts for violations of the Lacey Act. In one case, at Tecumseh, defendant pleaded guilty and was fined $550.

W. M. Grant, Chief Warden.

When the man who lived in the wretched log cabin with a family of 7 had told me that 40 acres of his land was a solid coal bed, I asked him if his deed was all right.

"Never had no deed, sah," he rather proudly replied.

"But you have no paper at all?"

"No paper 'tall, sah. I jest squatted down on this yere land 30 years ago, and hev been yere ever since."

"But if you have no paper won't the owner come along some day and bounce you out?"

"Not skassly, sah—not skassly. That is to say, sah, that the real owner has come along 3 different times and tried it, and every time he got killed and had to give it up. Deeds and sich things are all right 'nuff in their way, but my old gun, with a bar'l 7 feet long, is a heap better right around yere."—Washington Post.

I take great interest in reading RECREATION, for there is more valuable information to be found in its pages than in any other sportsmen's journal published; and aside from information, I like the way you handle the hogs of all kinds. RECREATION'S influence will grow.

W L. Blinn, Rockford, Ill.

FORESTRY.

EDITED BY DR. B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes thirty years to grow a tree and thirty minutes to cut it down and destroy it.

THE TALE OF THE RINGS.

H. H. CHAPMAN.

Every tree has its life history securely locked in its heart. Each year of its growth a thin ring of wood is formed next to the bark, and a corresponding layer of bark adjoining it. As the tree swells and swells, the bark is forced outward, and splits into wide fissures. Much of it falls off altogether, but each ring of wood remains a faithful record of the year in which it was formed. When the ax or saw of the woodman ends the life of the tree and brings its body crashing to the earth, this record is unrolled before us, and by it we can determine almost every incident in the life and growth of the tree.

Trees, as well as human beings, have their period of struggle and hardship, their prosperous times, their terrible misfortunes and hairbreadth escapes, their injuries and recovery, and their complete submergence in a struggle in which the odds were too great for their feeble strength to cope with. Here is a sturdy oak whose tale revealed is that of steady perseverance in the face of difficulties; a slow, gradual growth, never checked, never daunted, till the final goal is reached, and it stands supreme, literally monarch of all it surveys. Here is a mighty spruce, which has a tale of perseverance, but of a different sort. The oak conquers by force of character, by its fighting qualities. The spruce succeeds by its ability to endure. It is like the patient Jew, frugal, living on what would be starvation to others, till when their day of strength is past, and sudden disaster overtakes them, he enters into his inheritance and prospers amazingly.

See the record of this spruce, 50, 60, 70 years, each represented by a ring so small that it takes great care to distinguish them at all, and the whole 70 do not occupy the space of 3 inches at the heart of the tree. What a tale of hardship this sets forth. Other trees have preempted the light on which the existence of a tree depends. The poor spruce must be content with the twilight that filters through the branches of its enemies, the poplar, birch, and pine. But it is content. It knows that if the young poplars or pines spring up beside it in the shade, they can not endure, but will quickly die. It knows that the time will come when old age or disease will weaken the poplars, or, perhaps, a heavy wind will lay them low, and the spruce, old in years, but insignificant in stature, will escape injury, and still young in vitality will soon spring ahead in the race. Now see its rings; it has made as much growth in 10 years as in the preceding 70 and soon becomes a large tree.

What does the stump of this old white pine teach us? Evidently something extraordinary has happened to it, for away in, near the heart, a black scar runs around the edge of one of the annual rings, for nearly one fourth of its circumference, and outside of this the rings are no longer complete, but have their edges turned in against the face of this scar. Each subsequent ring reaches farther across it. By the time they have met in the center many years have elapsed and there is a deep fissure where the scar once existed; but the later rings have bridged the gap and, growing thicker in the depression, soon fill the circumference of the tree to its natural roundness, leaving no sign of the old wound. What happened to the tree? While it was still young, its mortal enemy, the forest fire, swept through the woods, destroying most of its companions and burning a large strip of the tender bark on its exposed side, so that the bark died and fell off; but being better protected than the others, and having still ¾ of its bark left uninjured it soon recovered, and its stump reveals how successfully it strove to heal the wound and grow to maturity, to perpetuate its species.

As it takes many swallows to make the summer so it takes many trees to make a forest, and the forest has almost as much individuality as the tree itself. Though each tree and each species struggle with each other for life and supremacy, yet in a sense they are helpful to each other, and protect each other from their common enemies.

Chief enemies of the forest are the wind, and the fire. Other enemies there are, such as insects and disease, and sometimes the forest suffers so severely that its whole aspect is changed, and new species come in and replace the old. Much of this history the rings will reveal to us, as is the case in some of the following actual examples from studies recently made in the pine forests of Northern Minnesota.

In one locality where small Norway pines stood close together, making a thick stand, it was found that almost without exception the trees were of the same age, 138 years. No matter how large or how slender the tree, it was just as old as its neighbor.

The rings on all these trees were large at the heart, but as 50 or 60 years went by, they got narrower and narrower, until some of the smaller trees seemed hardly to grow at all. The reason was plain; there were too many trees, and as none would give up the struggle, all suffered alike.

They were not the only sufferers. Here and there was a slender, struggling white pine, making a vain attempt to capture its share of sun and rain. Counting reveals that these white pines are also all of the same age, but, unfortunately, only 126 years old. The Norways had 12 years the start of them, and the delay was fatal.

How did it happen that these trees came in so thickly and all the same year? Perhaps further study will help us to find out. We go to another cutting, over a mile from the first. Here we find many trees, about the size of those we have left, and counting the rings, we find them to be the same age, 138 years. But here is something more. In a secluded nook stands a group of immense white and Norway trees, perhaps a dozen. These prove to be very old, but also of even age; each stump showing 315 rings. Where is the rest of this patriarchal forest? Close about the few remaining may be seen the forms of many more, stretched upon the ground and slowly decaying. These have evidently been blown down, possibly after being killed by fire. Their fate gives us the clue to the disappearance of the others. It is plain that some time before 1763, a great disaster overtook the pine forest in this place. Most of it was wiped out of existence, either by fire or wind. But here and there a clump remains, and from them in a favorable seed year came the seed which started the new and thriving crop of Norway pine.

To find out, if possible, whether this conflagration or blowdown was more than local, we go to a cutting some 10 miles from our first, and there again the oldest and largest of the stand, which is all rather small, prove to be 138 years old. Whatever the cause, it must have operated over a large area, but this is not a thick stand; in fact, there are many gaps, and much of the timber is limby and knotty, a sure sign that it has not been grown close together. Soon we find that many, in fact most, of the trees are but 101 years old, there being 2 distinct age classes.

How did this come about? Let us look at the older trees. On one of them is a fire scar, made when the tree was 18 years of age. On another we find a similar scar, made in the same year; and on close examination we can hardly find one of the older trees free from the marks of this fire. How plain it is, that this fire, occuring just 120 years ago, or in the year 1781, when the young forest was 18 years of age, killed nearly all the young pine and gave the forest a blow from which, in this place at least, it never fully recovered. It did the best it could, however, for the age of the second class of trees, 101 years, shows that the young survivors of the fire grew rapidly until at the age of 38 years they were enabled to produce a crop of seeds; or, possibly, the old trees from which the first ones came were still living and seeded down the ground a second time, so that a fairly good stand of trees was finally produced.

These studies lead us to infer that pines reproduce themselves as forests generally under exceptional or unusual circumstances, and that it is their natural way of maintaining themselves as species. The young white and Norway pine, especially the latter, can not endure much shade when small, and could not possibly grow up as a dense forest under their own shade or the shade of other trees; yet, we nearly always find them in dense groves. The rings tell us the secret. In the long period of 200 to 300 years during which the pines live, the accident of fire or wind becomes a certainty, and when a strip of forest is laid low or burned, the neighboring trees stand ready to scatter the seed far and wide in the wind, and the new growth springs up and flourishes.

This is nature's method; but nature's methods are so perfectly harmonized that but little is needed to throw them out of balance. Nature clears in strips and dashes seed there, and fires are rare and far apart. Man clears over wide areas and fires of his origin sweep repeatedly over his slashings. The young pine spring up even after the second and third fires, but by perseverance the fires finally destroy them all, and what nature intended to be the young pine forest becomes a barren wilderness.

ADIRONDACK FOREST PRESERVE.

New York City.

Editor RECREATION:

A bill is about to be introduced in Albany to sanction the cutting of conifers in the Adirondack Preserve, and forbidding the cutting of hard woods. This removal of the evergreens would be most destructive to game. It is the hard woods that should be removed. The supply of game in a region depends largely on the abundance of food;

the nature of the country, forest, brush, plain, etc., the protection it affords, and the extent to which man may interfere. The removal of the coniferous growth and in course of time the reversion to hard woods will greatly affect all these conditions.

Deer and ruffed grouse are the principal game of the Adirondack woods.

Conifers and hard woods, while the latter are in leaf, offer this game essentially the same shelter; but at this warm season the game needs little protection from natural dangers. It is when the snow covers the ground that shelter is needed.

Where does the ruffed grouse go in the blizzard; where, when the Norther blows? Does he roost on a bare maple limb?

Where do the deer lie when the snow is deep? Under the yellow birch, or the heavy-crowned spruce sapling? Where do the deer yard? On a hard wood ridge, or in the spruce swamp?

The ease with which game can be killed affects its plentifulness. If Tom, Dick and Harry could kill a deer every time they wished, how many would remain?

Why do you like best to hunt ruffed grouse and deer after the leaves have fallen? You can see better, you can shoot farther.

The abundance of food determines the size and fecundity of the animal. Not a feast and a famine diet is desirable, but a good food supply all the year round. The question of food during the late spring, the summer and the fall is of minor importance.

All the game in the Adirondacks could thrive on 100,000 acres during that period. The supply of game that an area will support is dependent on the amount of food available during the worst season, the winter. We must consider, therefore, the effects of the removal of the evergreens on the winter's food supply.

The food of the deer from November to April is arbor vitæ, hemlock, balsam, mosses and lichens, buds and twigs of witch hazel, dogwood, mountain maple and other shrubs. The extent to which evergreens enter into the diet is shown by the fact that venison late winter killed is tainted by them and of little value.

The ruffed grouse, during the winter in the Adirondacks, live on the buds, leaves and seeds of the pines, spruce, balsams, tamaracks and poplars.

The great hard wood region of the Appalachians, many times the size of the Adirondacks and as wild and often wilder, now has few deer. In early times they were extremely plentiful. In former times when the snow came the game went to the warm, low valleys now occupied by farms and villages. Now they must winter in the high altitudes where they summer. It has become a hard-wood country, and food is absent. As we come North into Pennsylvania, New York and Maine, and the percentage of coniferous growth increases; so do the deer.

PECAN NUTS.

Botanically the pecan, *Hicoria pecan*, belongs to the hickory family. The tree is one of the largest of the forest, growing 75 to 170 feet high, with wide spreading branches and symmetrical top. In appearance the tree resembles somewhat closely the ordinary hickory nut. The nuts are generally oblong and vary in weight from 25 to over 100 a pound. The shells are relatively thin and much more easily cracked than those of the common hickory nut, and are dark colored and fairly smooth. The nuts are usually polished before marketing. Some fancy and high-priced varieties are not polished, but sold in their natural condition.

The pecan is found native in river bottoms from Iowa and Kentucky, Southwest into Mexico. It is successfully grown in many other States. Generally, however, pecans will not be commercially successful North of parallel 40. Pecan nuts are grown on a commercial scale in California, and orchards have been planted in a number of Southern States. Texas and Louisiana at present furnish the main bulk of the annual crop, mostly from native trees.

Pecans may be propagated from seed. They are liable to considerable variation, however, and budding and grafting are therefore resorted to in propagating desirable sorts.

By selection and cultivation a number of varieties of pecans have been originated which are great improvements over the native sorts. The points to be considered in estimating the value of pecans are quality and flavor, plumpness of kernel, ease with which the kernel separates, size, and the thickness of the shell. A thin-shell variety, other factors being equal, is most desirable. Stuart, Van Deman, Centennial, and Frotcher are considered standard sorts.

Pecan trees may bear a few nuts at an early age, but paying crops can not be expected under 10 years, and full crops under 20. The annual crop of a tree in full bearing has been variously reported as 1 to 20 bushels.

Like most nuts, pecans contain a large quantity of fat or oils, fairly large quantities of nitrogenous material, and little carbohydrates. They are used principally as table nuts and in the making of cakes and confectionery or similar foods. The meats are also frequently salted.

PURE AND IMPURE FOOD.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH. D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

THE WAY TO BOIL MEAT.

If, in cooking, meat is placed in water cold at the start, part of the organic salts, the soluble albumen and the extractives, or flavoring matters, will be dissolved out. A little lactic acid will be formed, which acts on the meat and changes some of the insoluble matters into materials which may be dissolved out. The extent of this action and the total quantity of materials which actually go into the solution depend on 3 things: the extent of surface exposed to the water, the temperature of the water, and the length of time of the exposure. Small pieces of meat, long continued cooking and very hot water all result in rich broth and tasteless meat. If the water is heated gradually, more and more of the soluble materials are dissolved. At a temperature of about 134 degrees Fahr. the soluble albumen will begin to coagulate. At 160 degrees Fahr. the dissolved albumen will rise as a brownish scum to the top and the liquid will become clear. Upon heating still higher, the connective tissues begin to change into gelatin and are partly dissolved out; while the insoluble albuminoids are coagulated. The longer the action of the hot water continues, the tougher and more tasteless the meat becomes, but the better the broth. Treated in this way, flesh may lose over 40 per cent. by weight. This loss is principally water, but 5 to 8 per cent. may be made up of the soluble albumen, gelatin, mineral matters, organic acids, muscle sugar, and flavoring materials. Part of the melted fat also goes into the broth.

It would be a great mistake to assume that meat, thus boiled, which is nearly a tasteless mass of fibers left undissolved by the water, has no nutritive value. The tasteless material has been found to be as easily and completely digested as the same weight of ordinary roast. It contains nearly all the protein of the meat, and, if it is properly combined with vegetables, salt, and flavoring materials, makes an agreeable as well as nutritive food.

If a piece of meat is plunged into boiling water or very hot fat, the albumen on the entire surface of the meat is quickly coagulated, and the enveloping crust thus formed resists the dissolving action of water and prevents the escape of the juices and flavoring matters. The meat retains most of its flavoring matters, and has the desired meaty taste. The resulting broth is correspondingly weak.

The foregoing statements will be of much help in the rational cooking of meats in water. The treatment depends largely on what it is desired to do. It is impossible to make a rich broth and have a juicy, highly flavored piece of boiled meat at the same time. If the meat, only, is to be used, the cooking in water should be as follows: Plunge the cut at once into a generous supply of boiling water and keep the water at the boiling point, or as near boiling as possible, for 10 minutes, in order to coagulate the albumen and seal the pores of the meat. The coating thus formed will prevent the solvent action of the water and the escape of the soluble albumen and juices from the inner portions of the meat. But if the action of the boiling water should be continued, the whole interior of the meat would, in time be brought near the temperature of boiling water, and all the albumen would be coagulated and rendered hard. Instead of keeping the water at the boiling point, 212 degrees Fahr., therefore, the temperature should be allowed to fall to about 180 degrees Fahr., when the meat could be thoroughly cooked without becoming hard. A longer time will be required for cooking meat in this way, but the albumen will not be firmly coagulated and the flesh will be tender and juicy instead of tough and dry, as will be the case when the water is kept boiling, or nearly boiling, during the entire time of cooking.

In boiling delicate fish, as salmon or halibut, the plunging into boiling water is objectionable because the motion of the boiling water tends to break the fish into small pieces. Fish should be first put into water that is on the point of boiling. The water should be kept at this temperature a few minutes and then allowed to fall to 180 deg., as in the case of meats. Fish may be conveniently boiled in a fish basket made for the purpose.

If both the broth and the meat are to be used, the process of cooking should be quite different from that outlined for boiling meat. Stewing is in this country a much undervalued method of cooking. This is due partly to the fact that stewing is generally improperly done, and partly to the general aversion which, consciously or unconsciously, Americans have to made dishes of any kind. This aversion probably has its origin in a false notion which spurns economy or any attempt at economy in the diet.

In stewing, the meat should be cut into small pieces, so as to present relatively as large a surface as possible, and, instead of being quickly plunged into hot water, should be put into cold water in order that much of the juices and flavoring materials may be dissolved. The temperature should then be slowly raised until it reaches about 180 degrees Fahr., where it should be kept for some hours. Treated in this way, the broth will be rich and the meat still tender and juicy.

If the water is made much hotter than 180 degrees Fahr., the meat will be dry and fibrous. It is true that if a high temperature is maintained long enough the connective tissues will be changed to gelatin and partly dissolved away, and the meat will apparently be so tender that if touched with a fork it will fall to pieces. It will be discovered, however, that no matter how easily the fibers come apart, they offer considerable resistance to mastication. The albumen and fibrin have become thoroughly coagulated, and while the fibers have separated from each other, the prolonged boiling has only made them individually dryer and firmer.

The quantities of the ingredients in a meat broth may be illustrated by a German experiment. One pound of beef and 7 ounces of veal bones gave about a pint of strong broth or soup, which contained, by weight, water, 95.2; protein, 1.2 per cent.; fat, 1.5 per cent.; extractives, 1.8 per cent.; mineral matters, 0.3 per cent.

Palatable broths can be made by using more water and adding vegetables or savory herbs. Broths thus made have, of course, a greater quantity of water, frequently as much as 98 per cent., or even more; and the nutrients are correspondingly reduced in quantity. It would appear from the analysis given above that the quantity of solids in broth is generally small; consequently, their strong taste and stimulating effect on the nervous system must be ascribed to the meat bases, or flavoring matters, and to the salts of potash which they contain. Besides meat bases, soups contain more or less gelatin, varying directly with the quantity of bones used in the preparation.

The term meat extract is commonly applied to a large number of preparations of different character. They may be conveniently divided into 3 classes, namely, true meat extracts; meat juice obtained by pressure and preserved, compounds which contain dried pulverized meat, and similar preparations; and albumose or peptose preparations, commonly called predigested foods.

The true meat extract, if pure, contains little else besides the flavoring matters of the meat from which it is prepared, together with such mineral salts as may be dissolved out. It should contain no gelatin or fat, and can not, from the way in which it is made, contain any albumen. It is, therefore, not a food at all, but a stimulant, and should be classed with tea, coffee and other allied substances. It should never be administered to the sick except as directed by competent medical advice. Its strong meaty taste is deceptive, and persons depending on it alone for food would certainly die of starvation. Such meat extracts are often found useful in the kitchen for flavoring soups, sauces, etc. Broths and beef tea as prepared ordinarily in the household contain more or less protein, gelatin and fat, and, therefore, are foods as well as stimulants. The proportion of water in such compounds is always large.

The preserved meat juice and similar preparations contain more or less protein, and therefore have some value as food.

The third class of preparations is comparatively new. The better ones are really what they claim to be—predigested foods. They contain the soluble albumoses (peptoses), etc., which are obtained from meat by artificial digestion. The use of such preparations should be regulated by competent medical advice.

The principal difference between roasting and boiling is in the medium in which meat is cooked. In boiling, the flesh to be cooked is surrounded by boiling water; in roasting, by hot air, although in roasting proper much of the heat comes to the joint as radiant heat. In both cases, if properly conducted, the fibers of the meats are cooked in their own juices.

When the meat alone is to be eaten, either roasting, broiling, or frying in deep fat is, when properly done, a more rational method than boiling, for the juices are largely saved. The shrinkage in a roast of meat during cooking is chiefly due to a loss of water by evaporation. At the same time small quantities of carbon and nitrogen are driven off and a little acid is produced which dissolves some of the constituents of the meat. The fat undergoes a partial cleavage into fatty acids and glycerin, and a little of it is volatilized .

YEAST AND OTHER LEAVEN.

When, in beer making, a little yeast is put into a vat of warm, sweet liquid, bubbles gradually appear until the whole mass seems to be boiling. If the liquid is analyzed after the yeast has so worked in it for a time, it will be found to contain less sugar than at first; the amount of yeast will have increased and alcohol and carbon dioxid will appear in considerable quantities. The explanation, as given in a recent bulletin of the Department

of Agriculture, is this: The yeast, which is really a mass of tiny plants, has reproduced again and again, and in this growth has fed on the sugar of the liquid and given off alcohol and carbon dioxid. This phenomenon is called alcoholic fermentation, and is essentially the same as that which "raises" a loaf of bread. Such fermentation is by no means the only kind which occurs in common life. The souring of cider into vinegar, for instance, is due to another kind. In that case a variety of microscopic plant develops in the cider, and in so doing produces acetic acid, which gives vinegar its characteristic taste. This is called acetic fermentation. Similarly, if another variety of bacteria get a chance to develop in sweet milk, they give rise to lactic fermentation, during which is produced the lactic acid which turns the milk sour. Rancidity of butter is due to the so-called butyric fermentation. Here the bacteria yield butyric acid, which gives the butter its disagreeable taste and odor.

These microscopic plants and many others are widely distributed in the air, and often find their way accidentally into different materials, where they grow and multiply, causing fermentation; just as thistle seeds, for instance, are blown about in the air until they lodge in some favorable spot and grow. At other times special forms of ferments in so-called "pure cultures" are purposely added to some material, just as seeds of larger plants are purposely sown in the garden. Thus pure cultures of certain microscopic organisms are added to cream to improve the flavor of butter and make it uniform in quality. This insures a special fermentation instead of the accidental fermentation which would otherwise occur.

It is a peculiar feature of fermentation that the microscopic plants which cause it affect a much larger quantity of the material on which they feed than goes to their own development. Thus yeast converts much more sugar into alcohol and carbon dioxid than it consumes in its own growth and reproduction. When the fermentation ceases, the yeast plant remains; in other words, the fermentation has been produced without changing the nature of the agent producing it. In the same way enzyms (chemical bodies which also cause fermentation) bring about the change without being themselves changed. Though so much has been learned in recent years concerning fermentation, there still remain many things to be explained. We know what changes take place and under what conditions, but just why they take place is not clear. It is a remarkable fact concerning ferments that the substances they produce, in time, put a stop to their activity. Thus the alcohol produced by the yeast, in time, is sufficient to hinder the growth of the yeast plant and ultimately to kill it. If the products of this activity are removed, the ferments resume work.

Keeping the above facts in mind, it is easy to understand the leavening effect of yeast in dough. The yeast, "working" in the warm water and flour, feeds on sugar originally present or else produced from the starch by diastase, grows and spreads throughout the dough, at the same time giving off carbon dioxid gas, which forces its way between the tenacious particles of gluten and lightens the dough.

Scientifically speaking, yeast is a minute fungus of the genus *saccha romyces*. A single plant is a round or oval one-celled, microscopic body which reproduces in 2 ways: either by sending out buds which break off as new plants, or by forming spores which will grow into new plants. It grows only in the presence of moisture, heat, and nutritive material.

Yeast is literally as old as the hills. Like mold spores and other micro-organisms, it must be present in the atmosphere, for if a dish of malt extract, originally free from yeast, be exposed to the air, alcoholic fermentation, such as could be produced only by yeast, will soon set in. Such yeast is known as "wild yeast," and all our yeasts have been cultivated from it.

A piece of dough containing yeast is called "leaven." Raising bread with leaven is still carried on in some regions of Europe. Wet, or potato, yeast, so common in this country before the days of patent yeast, was made by cultivating wild yeast or yeast obtained from a baker or elsewhere in a decoction of hops or potato and water. Some of the material thus obtained was mixed with the dough. The "barms" so much used in Scotland are made by letting yeast grow in malt extract and flour. Brewers' and distillers' yeasts are taken from the vats in which malt extract has been fermenting. Compressed yeasts are made by growing yeast plants in some sweet liquid, then drying the material to check their growth, and pressing it. Sometimes a little starch is added to make the little cakes keep their shape. The strength of any yeast depends on the care with which it is made and preserved. Ordinary brewers' yeasts are likely to be full of the bacteria which set up lactic or other fermentations in the bread and give it a disagreeable odor and taste. They are very susceptible to changes in the weather, and can not be always relied on. Compressed yeasts, if carefully made, are more uniform in strength and composition. Usually a few bacteria other than yeast are allowed to remain, as the acid taste they give the bread is considered an advantage.

PUBLISHER'S NOTES.

HOW THE PAGE FENCE BUSINESS GROWS

Under date of March 20th the Page Fence Co., Adrian, Mich., writes:

"Our agents and customers will be interested to know that we have added 41 new looms to our weaving plant within the last year, and are completing 30 more as fast as possible. With this largely increased capacity for weaving, we hope to do this season what we have so far never been able to do in any past season—that is, supply the spring's demand for Page Fence.

"This increase in the number of looms, taken in connection with the fact that all our looms have been running night and day every week, excepting 2, for the last 13 months, will afford some idea of the amount of Page Fencing we are called on to supply.

"Before the end of March, 1902, we shall be drawing and galvanizing fully 200 tons of wire a day, and our Monessen Mills have been greatly enlarged in order to keep pace with the marvelous increase in our business."

The Page Fence is advertised in every issue of RECREATION.

Moral: If you want to build up your business advertise it in this magazine.

I beg to remind my readers, once more, of the importance of mentioning RECREATION when answering ads. I called on an advertiser the other day and he had on his desk a report from his check clerk of 10 inquiries for catalogues received that morning, only 2 of which mentioned any publication. The advertiser said that no doubt all of the 10 people who had written these inquiries had seen his ad in some paper or magazine, but the fact that 8 of them had neglected to state where they saw it made it impossible for him to credit any publisher with these inquiries. Suppose 8 people should write that advertiser each day, asking for catalogues, and failing to mention where they saw the advertisement. This would mean 2,920 inquiries in a year. Advertisers value RECREATION by the number of inquiries they get, mentioning it, and not by the number they get which do not mention it. Please remember it takes but a second of your time to add a postscript to your letter, saying "I saw it in RECREATION." Will you not kindly do this in future?

The Century Camera Company, Rochester, N. Y., is making some fine goods. I spent an hour very pleasantly the other day looking over some of these. The Century people are giving special attention to the wants of sportsmen, and are building several machines adapted specially to their wants. One of these is a long focus camera, which is adapted to the use of a telephoto lens, and which has several new and valuable features that I have never before seen attached to any camera.

The company has just issued a new catalogue, which describes these and many other goods made by this house. The book, which is especially complete in the matter of descriptive text, is beautifully illustrated. I advise all amateur photographers who are interested in outdoor work to write for a copy of it. In doing so do not forget to say you saw it mentioned in RECREATION.

The King Folding Boat Co., Kalamazoo, Mich., furnishes another instance of the successful advertiser. In the first place, these people make a thoroughly safe, reliable and smooth-working folding canvas boat. In the second place, they treat their customers fairly and courteously. In the third place, they use RECREATION liberally in making these boats known to the best sportsmen of the country. The King people started in RECREATION about 4 years ago, with one-eighth page of space. After a time they increased this to one-quarter page, and have now jumped to a full page for this, and a few subsequent issues. Then, for the remainder of the season they will use half pages.

Mr. W. C. Winans, manager of the King Folding Boat Co., writes me that their business has grown so rapidly during the past 2 years that they feel justified in branching out in this way, and in pushing the business vigorously. It pays to advertise liberally when you put it in the right place.

The Lake Park region of Minnesota is noted for its beautiful lake scenery and its fine fishing. This land was once covered by glaciers and from the débris of the glaciers came the present configuration of the country.

With the absorption, by the Northern Pacific, of the St. Paul & Duluth Railroad, this company obtained not only the short line between St. Paul and Minneapolis and Duluth and West Superior, but many additional fishing and scenic resorts in the

Lake Park region and St. Croix river valley, convenient to the cities named.

The chapter on The Moraine of the Glacier, in Wonderland for 1902, describes at length the beauties and characteristics of the region, and its advantages as a fishing and summer resort land.

You can get a copy of this beautiful book by writing Chas. S. Fee, G. P. A., St. Paul, Minn., and sending 6 cents. Please mention RECREATION.

Sportsmen and naturalists should know the good qualities of the Goerz binocular field glass. It is a powerful instrument, and is invaluable to any hunter or any person who desires to study wild animals or birds in their natural environment. It is no exaggeration to say that with one of these glasses you can clearly distinguish the eye and every feather of a sparrow at a distance of 50 yards. You can distinguish the eye, the hair and the horns of a deer at 200 yards with one of these glasses. You can see a 22 caliber bullet hole in a piece of white paper at 200 yards. When you realize the power of one of these glasses and the great value it is in hunting or studying wild animals, you will agree with me that no person interested in outdoor life can afford to be without one. Read the ad of C. P. Goerz & Son in this issue of RECREATION, and answer it. Do not forget to say where you saw it.

There is always great satisfaction in ordering goods from a house that you know will follow your instructions faithfully, and give you what you want. You can always rest assured of receiving such treatment at the hands of Wm. Mills & Sons, fishing tackle dealers, 21 Park Place, New York. This house was established in 1822, and among the thousands of customers who do business. In due time you will get the scarcely find a man who would not swear by them. Therefore, if you are in need of anything in the way of fishing tackle, fishing clothing, or related lines send in your order to Mills & Son, and go about your buisness. In due time you will get the goods, and they will be just what the doctor prescribed.

The Rochester Lens Company, Rochester, N. Y., is making a series of lenses that are equal to many of the high-priced goods produced in Europe. I was really surprised on going into their office and looking over some of their product. For instance, they make a 4x5 lens that sells as high as $150. It is not really necessary to pay such a price in order to get a good lens, but you can get just as good a one from this firm as you are willing to pay for. They issue a complete and exhaustive catalogue. If Interested in lenses please write for it and say you saw it mentioned in RECREATION.

Amateur photographers will be interested in the fact that Messrs. Charles I. Berg, Henry Troth and Rudolph Eickemeyer, Jr., have consented to act as judges in the Kodak Progress Competition. These men stand at the front of photography, and the best photographers may feel perfect confidence in their ability to pass judgment on the pictures submitted. The Eastman people may well feel gratified at being able to secure such capable men to do this important work.

E. S. Applegate & Co., of Trenton, N. J., have moved from their old stand to new and larger quarters at 209 East State St., opposite the postoffice, where they carry a full line of guns, ammunition, fishing tackle, camp equippage, and in fact almost everything a sportsman needs, when shooting, fishing or camping. Applegate & Co. publish a complete catalogue of sportsmen's goods, which they will send free to any one asking for it and mentioning this notice.

Every angler in the country should write Wm. Shakespeare, Jr., Kalamazoo, Mich., for a copy of his booklets, entitled, "Fine Points About Tackle," "The Art of Bait Casting," "How to Win," and "How to Catch Bass." These are all beautiful books from an artistic standpoint, and are full of valuable information. Any fisherman will be well rewarded for the time spent in reading them. In asking for them please mention RECREATION.

New Britain, Conn.

Mr. Henry L. Jespersen, New York.

My Dear Sir: Please send me a copy of your catalogue. I want some photo. supplies and remembering your favors to me when you were with the old firm, I should like to continue with you. Yours truly, E. H Davison.

Washington, Sr.—But, George, why did you cut down the cherry tree?

Washington, Jr.—Well, I had to distinguish myself somehow, and there weren't any mountain lions around to shoot.—Life.

ALL FARMERS SHOULD BE GAME PROTECTORS.

One of the greatest opportunities for effective work in the interest of game protection is in educating the farmers of this country. If I could only reach a large percentage of these good people, if I could only afford to print 1,000,000 extra copies of RECREATION each month and mail them to farmers, we should soon have them all on our side. I would then run a series of practical talks to farmers as to the need of protecting the game on their lands, of feeding the birds during the winter months. If we could only convince each farmer that a covey of quails is worth 10 times as much to him alive as it is dead, we would then have him on our side. Any large landowner can sell shooting privileges at a liberal price per acre if he has plenty of game. Not only this, but there are thousands of sportsmen who, after buying the shooting privileges on a farm, would pay the farmer's boy liberally to go with them over the fields and through the covers to find the birds. Furthermore, the sportsman would board with the farmer and buy feed for his team. Thus the game would become a valuable asset to the farmer.

Not one sportsman in 100 who went after the birds would kill any large number per day. Any reasonable man would be satisfied with half a dozen birds for a day's shooting. If the birds were properly guarded and the shooting privileges limited to a few, there would be a fair number of each covey of quails left at the close of each hunting season to breed. Then by putting out a small quantity of feed during the winter; by leaving a few shocks of corn, or rye, or oats, with openings in them, where the birds could find shelter, and by leaving out a small patch of standing grain, the birds would rendezvous about the fields, or even about the house and barn.

There are a few farmers in every State who have learned the value of live game, and who are leasing their shooting privileges as outlined above, and they find that, to reverse an old adage, a bird in the bush is worth 2 in the hand. There are other farmers who continue to kill or trap and sell all the birds they can find, or who allow their boys to do so. These latter are the men we should reach.

As I have frequently said, one of the greatest opportunities that exists for effective work on the part of the gun clubs or individual sportsmen is in having RECREATION sent to farmers who are known to have quails or other game birds on their lands. If the brethren would only take up this line of work systematically and earnestly, they would find that in nearly every instance they would make a game protectionist of each farmer to whom they might send this magazine.

I am prepared to make a liberal discount on clubs of twenty-five or more copies of RECREATION to go to farmers. Think this over, brethren, and let me hear from you.

A POST CHECK.

Congress is attempting to perfect a design for currency intended especially for transmission through the mails, and the active people of the country wish it success. The committees on post-offices and post-roads have before them a measure providing a Post check in denominations of $5 and under, down to the denominations of fractional currency. It is proposed to retire the $5, $2 and $1 dollar bills now issued by the Government and substitute the Post check, and make the latter the regular paper money for those denominations. The Post check was devised by Mr. C. W. Post, a prominent and public-spirited citizen of Battle Creek, Mich. He was assisted in its perfection by a number of publishers, and the plan has been earnestly endorsed by the American Newspaper Publishers' Association.

The general appearance of the Post check is that of the present $1 or $2 bill. On one side are blank lines on which the holder may write the name and address of anyone to whom he desires to make payment by mail. The payee, on receipt of the money, attaches his signature and collects the money at the office named. To forge the signature of the payee is a penitentiary offense, same as counterfeiting. As rapidly as the signed bills come into the possession of postmasters they are sent to Washington for redemption. By this process, one can carry about his person paper money in various denominations under $5, and it passes as good as gold. Should he desire to make remittance by mail he simply takes out a bill or piece of fractional currency, writes the name of his creditor, affixes and cancels a stamp, and it only requires the signature of the latter to again make the money as good as gold at the office named.

Since the adoption of rural mail delivery, farmers will be greatly interested in this proposition, and they would do well to so express themselves to their Senators and Representatives in Congress. The design has been dedicated to the Government, so that no individual can selfishly profit by the adoption of the Post check.

DIRECT FROM DISTILLER TO CONSUMER.

HAYNER WHISKEY

Pure Seven-Year-Old Rye,

4 FULL QUARTS $3.20

EXPRESS CHARGES PREPAID

When You Buy Hayner Whiskey you get direct from the maker the best whiskey that one of the largest and most completely equipped distilleries in the country can produce, after an experience of 36 years of continuous success.

When You Buy Hayner Whiskey you get a whiskey that has not passed through the hands of any rectifier or wholesale or retail liquor dealer, thus avoiding all chance of adulteration, and saving at the same time the large profits of these dealers. Hayner Whiskey is absolutely pure.

When You Buy Hayner Whiskey you get at practically first cost a whiskey that has no superior at any price, and is regularly supplied by us to nearly a quarter of a million satisfied customers, convincing evidence that our whiskey pleases.

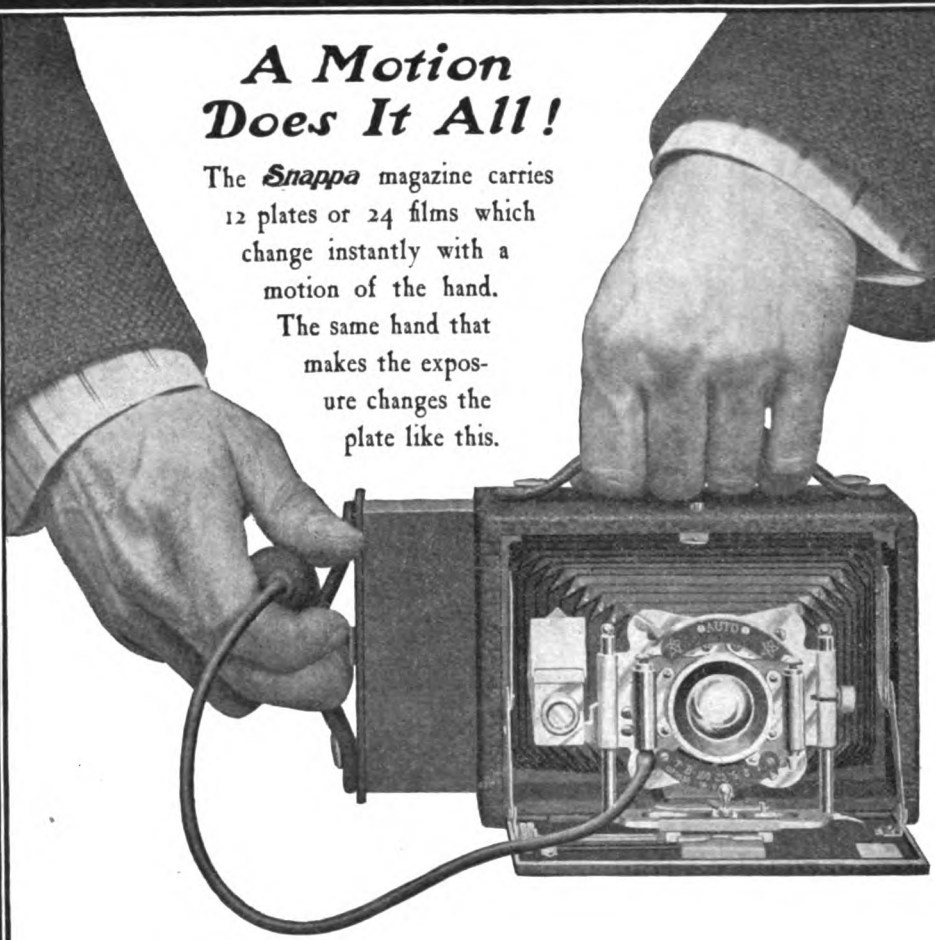
Our Offer *We will ship you by express, charges prepaid, four full quarts of* HAYNER'S SEVEN-YEAR-OLD RYE *for $3.20. If you don't find it all right after trying it, send it back at our expense and your $3.20 will be promptly refunded. Shipment made in a plain sealed case; no marks of any kind to indicate contents.* WRITE OUR NEAREST OFFICE.

THE HAYNER DISTILLING COMPANY,
226-232 West Fifth Street, DAYTON, OHIO.
305-307 S. Seventh Street, ST. LOUIS, MO.
82-84 East Fifth Street, ST. PAUL, MINN.

Orders for Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming must call for **20 quarts** for **$16.00** by **freight prepaid.**

A Motion Does It All!

The *Snappa* magazine carries 12 plates or 24 films which change instantly with a motion of the hand. The same hand that makes the exposure changes the plate like this.



Snappa

The marvel camera of the age. An invention surpassing all photographic instruments in accuracy, rapidity and ease of operation. Loads in daylight and is always ready for instant use. Every exposure is separate and can be developed independently. Uses either plates or films with equal facility. *Snappa* represents the last step in camera perfection—marks a mighty stride in the art of picture making. Ask the dealer to show you how it operates, or send for the *Snappa* book—FREE.

ROCHESTER OPTICAL AND CAMERA CO., 119 South Street, Rochester, New York

AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

7th ANNUAL COMPETITION.

RECREATION has conducted 6 amateur photographic competitions, all of which have been eminently successful. The 7th opened April 1st, 1902, and will close November 30th, 1902.

Following is a list of prizes to be awarded:

First prize: A Long Focus Korona Camera 5 x 7, made by the Gundlach Optical Co., Rochester, N. Y., fitted with a Turner-Reich Anastigmat Lens, and listed at $85.

Second prize: A No. 3 Folding Pocket Kodak, made by the Eastman Kodak Co., Rochester, N. Y., fitted with a Bausch & Lomb Lens Plastigmat Unicum Shutter, and listed at $61.50.

Third prize: An Al-Vista-Panoramic Camera, made by the Multiscope and Film Co., Burlington, Wis., and listed at $40.

Fourth prize: A Wizard C Camera, 4 x 5, made by the Manhattan Optical Co. Cresskill, N. J., with B. & L. Iris Diaphragm and Leather Carrying Case; listed at $33.

Fifth prize: A Waterproof Wall Tent, 12 x 16, made by D. T. Abercrombie & Co., New York, and Listed at $32.

Sixth prize: A Gold Hunting Case Watch; listed at $50.

Seventh prize: A Tourist Hawkeye Camera, 4 x 5, and made by the Blair Camera Co., Rochester, N. Y., and listed at $15.

Eighth prize: A Bristol Steel Fishing Rod, made by the Horton Mfg. Co., Bristol, Conn., and listed at $6.

The 10 next best pictures will each be awarded one dozen 8 x 10 Carbutt Plates, made by the Carbutt Dry Plate Co., Wayne Junction, Philadelphia, Pa.

The 10 next best pictures will each be awarded one dozen 5 x 7 Carbutt Plates.

The 10 next best pictures will each be awarded one dozen 4 x 5 Carbutt Plates.

A special prize: A Goerz Binocular Field Glass, listed at $74.25, will be given for the best picture of a live wild animal.

Subjects are limited to wild animals, birds, fishes, camp scenes, and to figures or groups of persons, or animals, representing in a truthful manner shooting, fishing, amateur photography, bicycling, sailing or other form of outdoor or indoor sport or recreation. Awards to be made by 3 judges, none of whom shall be competitors.

Conditions: Contestants must submit 2 mounted prints, either silver, bromide, platinum or carbon, of each subject, which, as well as the negative, shall become the property of RECREATION. Negatives not to be sent unless called for.

In submitting pictures, please write simply your full name and address on the back of each, and number such prints as you may send, 1, 2, 3, etc. Then in a letter addressed Photographic Editor, RECREATION, say, for instance:

No. 1 is entitled —— ——.
Made with a —— —— camera.
—— —— lens.
On a —— —— plate.
Printed on —— —— paper.
Length of exposure, —— ——.

Then add any further information you may deem of interest to the judges, or to other amateur photographers. Same as to Nos. 2, 3, etc.

This is necessary in order to save postage. In all cases where more than the name and address of the sender and serial number of picture are written on the back of prints I am required to pay letter postage here. I have paid as high as $2.50 on a single package of a dozen pictures, in addition to that prepaid by the sender, on account of too much writing on the prints.

Any number of subjects may be submitted.

Pictures that may have been published elsewhere, or that may have been entered in any other competition, not available. No entry fee charged.

Don't let people who pose for you look at the camera. Occupy them in some other way. Many otherwise fine pictures have failed to win in the former competitions because the makers did not heed this warning.

DEVELOPMENT.

Great care is necessary in the manipulation of sensitive plates to guard them against injury by diffused light entering lens, camera, plate holder, or dark room, or the use of too strong a light while developing.

A ruby glass covered with orange colored paper, known as gold bank envelope, is recommended for the dark room light. Ruby color being the least actinic, offers th greatest protection. The safety of the light can be tested as follows: Cover one-half of a plate with opaque paper and hold it close to the light about one minute. Develop, and if the unprotected part shows fog, screen the light with additional paper until it is safe. It is advisable to have a second ruby glass arranged in a sliding frame to serve as a safeguard when working isochromatic plates. This frame should only be removed while examining the progress of development. The lens should be examined by pointing the camera toward strong light, and if there are reflections caused by the shining edges of the diaphragm or the inner walls of the tube the shining surfaces should be blackened.

To test the camera and plate holder, protect a plate partially by a strip of black paper on its face, place in the camera, draw the slide and expose 5 minutes while the lens remains covered. If camera

and holder are not light-tight it will show on developing the plate. Fog is often caused by light entering the slide or between holder and back of camera.

A developer containing a surplus of alkali effects more detail in the shadows and lessens the intensity of the high lights, which causes more softness in the negative; consequently such a developer suits well for under exposed plates, which explains why for under exposures a preliminary bath in a soda solution or ammonia solution is used to advantage. A large number of developing substances, such as pyro, eikonogen, metol, hydrochinone and glycin, quickly intensify the high lights, and hasten the development, so that the shadows remain far behind; therefore a modification by little over exposure, dull lighting, or soft-working plates, is of good service.

The developer diluted with water slows the process of development, gives the shadows more chance to work through before the high lights have gained their strength, prevents contrast, and therefore is recommended for contrasty plates or under exposure. The old or used developer acts the same as bromide, checks the development, and clears, and is used when plates are greatly over exposed or a general fog is apparent.

A soft camel's hair brush may be used to remove dust from plates before placing them in the holder or dark slide. If the brushing is done hurriedly, the film will be instantly electrified and attract to itself more dust than you remove.

When plates are exposed and set away for future development, be sure to set them face to face, as they were in the original boxes. If the face, or film, is placed against the back, you will probably have finger marks on the film, caused by the fingers coming in contact with the backs of the plates while placing them in the holder.

It is advisable to use a fresh solution of hyposulphite of soda each day during hot weather. The fresh solution hardens the film, and alum will not be necessary. Thorough fixing and thorough washing, followed by quick drying, will insure permanency and fine printing quality in the negative.

During the hot season the developer must be used more diluted and cold, by placing in ice-cold water; while during the cold season it should be stronger and moderately warm, about 70° F. Developer which is too strongly alkaline or too warm, produces stain and fog.

As soon as over exposure is noticed in developing, check it immediately by plentiful washing and finish with the regular developer, to which has been added bromide or old developer. An under timed plate should be treated with a fresh, diluted developer. If sufficient detail does not appear, take the plate from the developer, and, without rinsing, place it in a tray containing water, to which a little of the alkaline solution (sulphite and carbonate of soda) has been added, and leave it there as long as it increases in detail. If it is not then strong enough, the development may be continued in fresh developer.

To prevent sand or rust from striking the negatives while washing, tie a piece of cotton flannel over the faucet.

Negatives exposed to white light before the bromide of silver is thoroughly dissolved in the fixing solution will be foggy, and the printing quality will be injured.

A solution of bromide of potassium, one ounce of bromide to 10 ounces of water, should be in every developing room. When plates are a little over exposed, a few drops of this solution added to the developer will restrain its action and may thus produce a good negative from what would otherwise be a worthless plate.

Fog is caused by over exposure, white light entering camera or dark room, too much light during development, uncleau trays, developer decomposed, too warm or containing too much carbonate of soda or potassium. A slight fog can be removed by the red prussiate and hypo reducing solution.

Weak negatives with clear shadows are caused by under development; too strong ones, with clear shadows, by under exposure, or too strong developer.

Weak negatives with plenty of detail in the shadows are caused by over exposure, or too weak developer. Add some of the contrast developer to the normal.

Developer being excessively strong or too warm gives too much intensity. Negatives dried in warm, sultry air assume more intensity than when dried in a cool place with draft.

Using too stiff a brush in dusting plates makes fine transparent lines.

Round transparent spots result from air bubbles in the developer.

Transparent spots of irregular shape are caused by dust. Keep the camera and holder free from dust and brush the plate carefully before placing in the holder.

Yellow and brown stain or iridescence of the surface is caused by decomposed pyro solution, insufficient or decomposed sulphite of sodium in developer; using the developer warmer or stronger in alkali than the plate will stand; also by plain hypo solution, which by continued use has assumed a dark color, or by insufficient fixing. The stain may be removed by applying the red prussiate and hypo reducing solution and the iridescent

surface can be wiped off with a tuft of cotton while the negative is wet.

Mottled appearance of negative is caused by precipitation from the fixing bath containing alum, if the solution is old or turbid.

Crystallization on the negative and fading of image are caused by imperfect elimination of the hypo.

Peculiar streaks and blotches, in the shape of brush marks, finger marks, and insensitive spots, appearing as though the plate had been scrubbed with a dirty or greasy brush, or improperly cleaned, are caused by the uneven action of the developer. This trouble is more likely to occur if hydrochinone is used in connection with eikonogen or metol, when the developer is too old or too much diluted, and can be prevented by a previous soaking of the plate in water, or by a radical change to a different developer.

If the hydrometer be used, the most convenient way is to make up saturated solutions and to add water to a portion thereof, until the hydrometer indicates the desired degree. It makes no difference if dried sodas are used in place of crystals when the solutions are prepared by hydrometer test; but if they are prepared by weights it must be borne in mind that one ounce dried or anhydrous soda is equal to about 2 ounces crystals, owing to the water of crystalization the latter contain. This applies to both the sulphite and the carbonate of sodium. When dissolving dried sulphite or carbonate of sodium, the water should be vigorously stirred with a glass rod while adding the powdered chemicals, to cause speedy solution and prevent the formation of a solid lump, hard to dissolve. Carbonate of potassium may be substituted for dried carbonate of soda and is of equal strength. The carbonates of soda or potassium are added to give the developing agent the alkalinity required for action, whereas the sulphite is added to prevent rapid decomposition and discoloration. Sulphite of sodium and its solution decompose by contact with air, and therefore should be kept in well stoppered bottles. The solution should be used while fresh. It is important that pure sulphite and carbonate of soda be employed.—From the International Annual of Anthony's Photographic Bulletin for 1902.

WHY IT WON THIRD PRIZE.

Savanna, Ills.

Editor RECREATION:

I do not criticise you nor RECREATION; neither am I a crank; but I do not think justice was shown me when my woodcock photos were turned down for "Fly Fishing," "A Howling Coyotte," and "Besieged." Now, honestly do you not think my "Mother Woodcock" is a much rarer subject than the 3 that were placed ahead of mine? When is there a time during our spring, summer, or late fall that such an exposure of a spider can not be made in any garden, or in some secluded spot in our woods? Are there such opportunities with mother woodcock? I supposed preference would be given in your contest to photos of game birds and wild animals in their native haunts. Mother woodcock was at home, just as I found her. If you look closely at the photo "Besieged" you can see a rope, or string running from the bank just over the dog on the branch toward Mr. Coon's collar; but as there is not much detail in the water beyond the man, the other end of the boat, that which appears to be the rope or string held by some party on the shore is lost to view. I do not consider that detail is properly shown in water unless the water is made to appear wet. If detail is not one half the making of a good negative, pray what is? If the maker of this negative had selected a day when a gentle breeze cut the surface of the water more plainly, he would have had more detail beyond the man in the boat, and immediately in front of the farther bank. Instead, the water looks chalky and without detail.

I do not think there is much detail or interest in the photo of the howling coyote. I do not care for the prize, but I do for the place. When you print my "Mother Woodcock and Nest," give it justice, and when you reproduce it publish this letter and have the readers of RECREATION judge for us, the same as they judged for Mr. Balch regarding the beaver photo. I respectfully ask RECREATION readers, interested in photography, to examine the 3 photos mentioned and then the mother woodcock photo. If I lose, I shall consider I am no judge of the making of a rare negative. A great many of my friends as well as others, some readers of RECREATION and some not, do not think I have been treated right. In my photo of the nest I threw my focusing cloth over some twigs to shut out the light of the sun from the eggs, in order to prevent halation on the eggs, thereby securing detail on eggs. The amateur photographers here think the judges were away off in their decisions.

Homer G. Gosney.

ANSWER.

I had 3 good men to judge the photos and after careful consideration of all in hand they decided that the fishing scene was best, all things considered.

There are other elements that must be taken into account in awarding a prize to

a picture, than the difficulty of getting it; and while your woodcock picture is interesting, rare and valuable, I think the judges placed it about as high in the list as they were warranted in doing. The fishing picture has many elements of value in it. In the first place it was made on a 6½ x 8½ plate. In the second place it was made with a very fine lens, one which probably cost $75 to $100; and it is impossible for any person to get as fine detail in all parts of a picture with a cheap lens, as this man got in his with a good one. Then in the deep shadows there is fine, sharp detail. The pose and the action of the men is lifelike and real. I doubt if they knew they were being photographed. Whether they did or not they were attending strictly to business. You will see all through the foreground drops of water and bits of foam in the air, 6 inches to a foot above the surface of the water. This is a rare effect to get in a marine picture and it takes a fine lens, a rapid shutter, a rapid plate, and careful focusing to accomplish all that this man has accomplished in this picture.—EDITOR.

RESULT OF USING ISO PLATES.

Herewith I enclose photo of a young man standing in the woods, and near him a bench on which is some oak bark. This picture and another were taken at the same time to show the difference between the results obtained by using isochromatic plates, which are especially for color values, and ordinary plates. This picture was taken at 2 p. m., stop 8, and was given 14 seconds. The day was cloudy. The trees in the distance look as if the whole picture was taken in a studio. It merely goes to show the value of the isochromatic plates for outdoor scenes as well as for interiors. If the amateur would take an ordinary plate and an isochromatic of the same speed, give them the same time, same stop, and develop with the same developer, he would see a vast difference, and I believe would take only the isochromatic plate for any subject in the future. The cost is only 5 cents a dozen more, and 5 times as much good and pleasure result from seeing a good negative. Isochromatic plates give a better appearance and a softer negative.

This picture was taken on a slow isochromatic plate, which will hardly do for portraits out of doors, as 14 seconds is too long, especially if any wind be blowing. The instantaneous plate is best for outdoor scenes, especially if it be stopped down to 16 F., or 32 F., but for all around work the medium brand is a plate hard to duplicate. The best effect of sea views or snow scenes can be obtained on Aristo Platino paper from these plates. The surf and foam of the waves then show as clearly as it is possible to get them. Isochromatic plates are no more difficult to handle than any other. Simply keep the white light from the plate, and do not keep it too near the ruby light. A red lantern with no white light coming out of any small holes or openings, is as good a lamp as can be had. Use a pyro developer. Many people do not wish it, but it brings out things clearly, and gives the best negative to print from. One need not keep his hands in the pyro all the time. An old knife is handy in the dark room, for plates sticking in the holders and to lift the plate out of the pyro. It will not stain the hands at all.

Following is a good formula for small quantities of developer, to be made up and used as one wishes to develop, say only 2 or 4 plates. It costs little and is always full strength, giving good results. Stir into 8 ounces of boiled water,

1 drachm (60 grains) carbonate of soda.

2 drachms (120 grains) sulphur.

For users of 4x5 plates, 4 ounces is plenty. When dissolved, add 3 grains of dry pyro for each ounce of water. Less pyro, less intensity.

This formula gives the full strength of the pyro.

In making hypo, use plain hypo and water; 4 ounces of water to one ounce of hypo, and lay aside all other chemicals, especially in winter.

H. P. Wightman, Evanston, Ill.

The photo which Mr. Wightman refers to, while possessing all the good points he claims, is not of such a nature as to warrant reproduction.—EDITOR.

CYKO PAPER.

The best developing paper I have ever used for black and white effects is Cyko. It is simple to use, and does not cost much more than ordinary printing paper. To try it I selected the best plate I had and went to my dark room. I printed by the light of a candle, by opening the slide on my dark-room lamp and holding the frame about 4 inches away from the light. I exposed the first print about a minute and then developed it. Only a dim outline presented itself. I then refilled the frame, exposed the second sheet 2 minutes, and had better results. I then tried another sheet on the same plate, giving it a few seconds more exposure. I put it into the developer, and after about 20 seconds I could see the outlines. The picture soon came into full view and far exceeded my expectations. I wish some of my fellow photographers would try this paper. They can get it by sending to The Anthony & Scovill Co., 122 Fifth Ave., New York.

J. C. C., Beatty, Pa.

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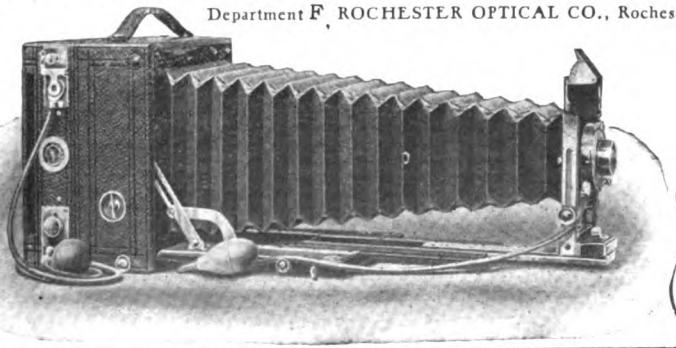
Every camera improvement since the day of Daguerre; every idea that has increased the accuracy and efficiency of picture taking, has been crystalized and perfected in the Premo Supreme. The highest type of camera modern science can produce, and a worthy representative of the famous line of Premos. Fully described and pictured in the Premo book for 1902. An authority on all the requisites of Photography. To be had at the dealers, or sent free by mail.

Department F, ROCHESTER OPTICAL CO., Rochester, N.Y.



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Uses daylight loading film cartridges and may be focused on the ground glass. The touch of a button releases the film carrier which is then pulled up by the handle, the ground glass springing automatically into place.

Instant and positive in operation. The focusing scale may, of course, be used when desired. An extra extension to bellows permits of working to within 18 inches of subject.

Improved rising front, B. & L. Automatic Shutter, with iris diaphragm stops. Finest Rapid Rectilinear Lenses. Perfect in construction and finish.

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"Pardon me, me dear man, but could I trouble you for a match?" After lighting his cigar he continued: "Bah, Jove, this is a remarkable city. This is my first visit to New York, d'ye know? I'm a deuced stranger, but on the other side I'm a person of importance. I am Sir Francis Daffy, Knight of the Garter, Knight of the Bath, Knight of the Double Eagle, Knight of the Golden Fleece, Knight of the Iron Cross. D'ye mind telling me your name, me dear man?"

Replied he of the auburn hair, in a deep, rich brogue: "Me name is Michael Murphy, night before last, night before that, last night, to-night, and every other night." —Big Four Gazette.

Inclosed please find check for $1 to renew my subscription to your interesting magazine for another year. I have been a reader of RECREATION for 6 years and its coming every month brings with it true recreation from the worries and cares of business. The interesting experiences of other sportsmen, the information from the game fields of our country, and above all, the personal efforts of the editor to elevate the tone of a noble sport and, refine the instincts of its votaries, are what make your magazine so welcome in our home. Success has already crowned your efforts, but may you still be many times more successful. F.H. Jones, Norwalk, O.

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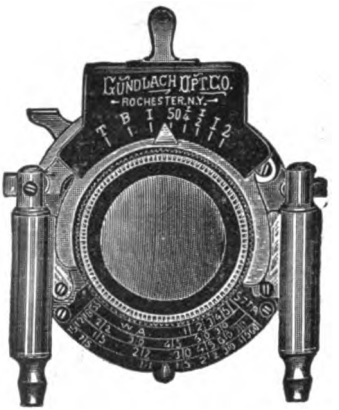

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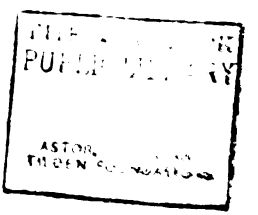
PUBLIC
ASTOR,

I SAW ABOVE THEM AN EAGLE.

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RECREATION

Volume XVI. JUNE, 1902. Number 6.

G. O. SHIELDS (COQUINA), Editor and Manager

A FEATHERED HUNTER.

L. B. STORER.

One bright day in the winter of 1880 the foreman of a ranch in Southwestern Nebraska sent me in search of game to replenish our meat supply. There were plenty of antelope in that country then and no one had yet thought to call a halt on the hunters and ranchmen who were killing them off. That was before the days of RECREATION and the L. A. S., and so we had not learned to look ahead. Now there is scarcely a wild antelope in the whole State of Nebraska. We supposed the game would last as long as we did, and neither thought nor cared whether the next generation should get sight of an antelope or not.

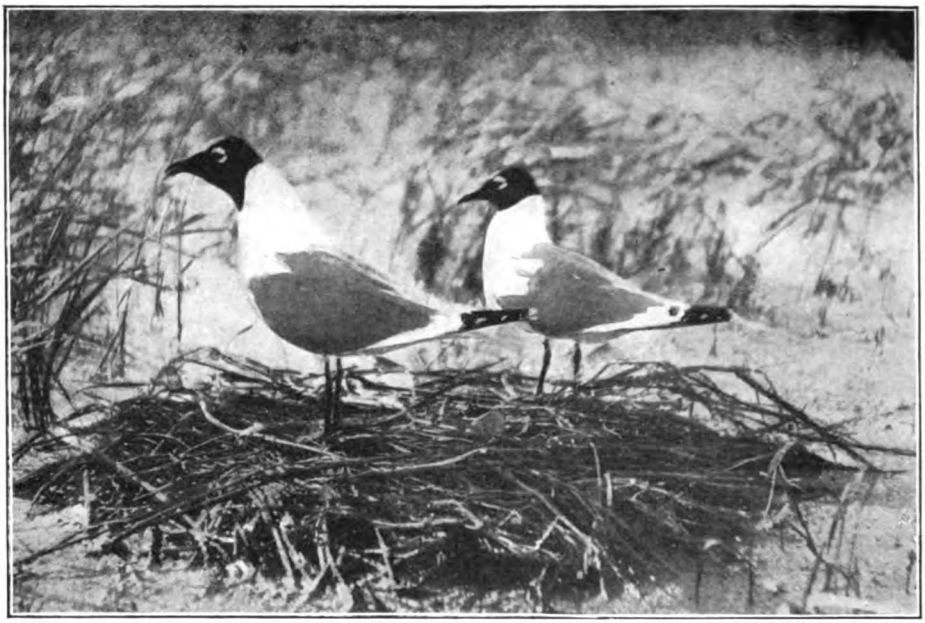
An hour's tramp over the rolling prairie brought me near the top of a sharp ridge. Removing my hat, I crept cautiously to the summit and located a band of 8 antelope. They were about half a mile away and were feeding directly toward me. There were a few inches of snow on the ground. As the wind was favorable and I was completely hidden from their sight, I felt reasonably sure of my game. They had not seen me and knew nothing of the dangers that lurked about them.

The animals finally approached within 300 yards of me when they suddenly bunched and started on a run in the direction whence they had come. They ran some distance before I discovered the cause of the stampede. Then I saw, about 10 feet behind and about the same distance above them, an eagle. For half a mile he pursued them, maintaining his position perfectly, and I could not see that he varied an inch. The antelope were just touching the high places and were getting far away, but, watching them through my field glass, I saw the eagle swoop. One antelope left the band; the great bird followed him, and for a moment both disappeared from sight. Then they emerged from the swale and started up the opposite ridge. The eagle had gained on its prey until now it was directly over the poor beast. The race was neck and neck, with the odds all in favor of the cruel bird.

Finally he folded his wings and dropped like a chunk of lead on the antelope's neck. The latter fell, apparently stunned by the blow. Then there was a struggle, during which the terror stricken quarry several times rose to his feet; but the bird's talons were sunk deep in his neck and the life blood was flowing rapidly. The great bird pounded the antelope with its mighty wings and apparently blinded him.

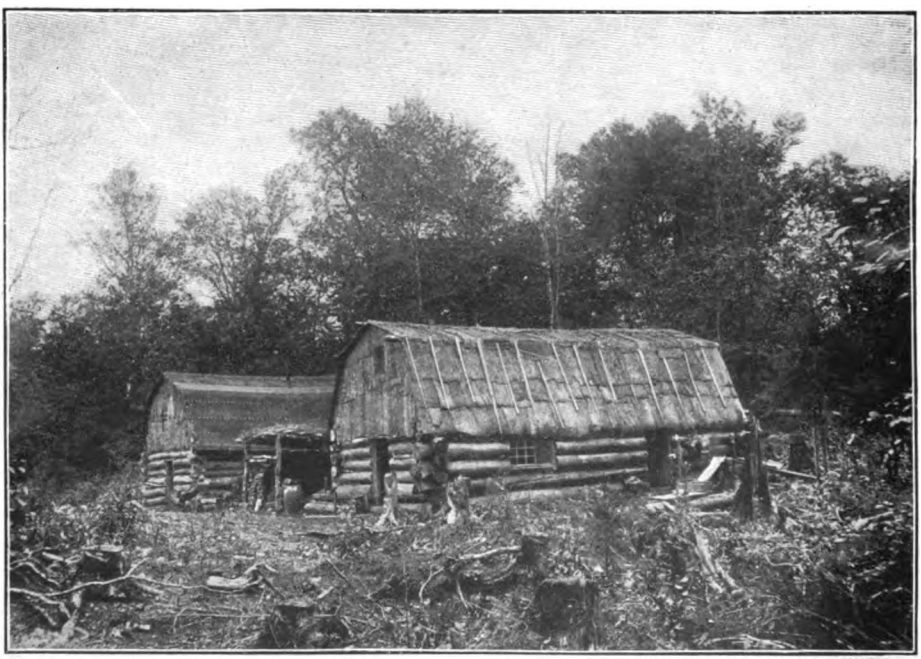
I ran toward them, hoping to get a shot at the bird, but as I approached he arose, soared away and lit on a butte, a quarter of a mile distant. He had not yet had his well earned dinner, so I took only the hind quarters of the poor antelope and returned to the ranch without firing a shot.

We had all the meat we needed in the shack for the following week, and the feathered hunter had an abundant feast left for himself and several coyotes.



AMATEUR PHOTO BY H. K. JOB.

ROSY GULLS.
Winner of 31st Prize in RECREATION's 6th Annual Photo Competition.



AMATEUR PHOTO BY MRS. F. S. KIRSCHNER.

A LODGE IN THE WILDERNESS.
Winner of 33d Prize in RECREATION's 6th Annual Photo Competition.

A BEAR AND A CARIBOU.

GREENHORN.

In July, '99, 4 of us were camped on German creek, a tributary of Twelve Mile river, which joins the Yukon 18 miles below Dawson. We were prospecting some placer ground, which had been staked the winter before Not having had any fresh meat since April, 2 of us went hunting. About half a mile up stream we sepa ated, one taking each side of a gulch.

I struck a moose trail; not the fresh track of an individual, but a regular highway, made and used by moose and caribou. Every part of the Yukon country that I saw is full of these trails or runways. In some places, as, for instance, a low point in a divide between 2 creeks, the trail is over 4 feet wide, bare of moss and well beaten. In such crossings one can nearly always find good sized holes which the animals evidently make by pawing. There is a trail on the top of every ridge and in every creek bottom, in moose country; with cross trails from gulch to gulch at convenient places. They invariably follow the best ground, avoiding stony places and hummocks. Along a ridge, the best traveling is always on the moose trail. The trails in the bottoms are not so good.

On the day in question, I reached a point near the *rendezvous* without seeing game, and sat down where I had a good outlook, and could intercept my companion. After a while, a spot of brown, about half a mile up the gulch, caught my eye. Presently I saw it was a brown bear almost as big as a fat steer. My hair rose and chills chased up and down my back, for it was the first bear I had ever seen at large.

Bruin was cautiously nosing about in the high grass, continually stopping to look around. As soon as I got over my nervousness, I began to want a bear, and concluded I could safely gratify desire as I had a .30-30 Winchester carbine, and about 15 cartridges with soft point bullets.

The bear was in the bottom of the gulch above timber line, and from where I was sitting it was impossible to approach him unseen.

I slipped around a rock out of his sight, and went down hill to where the trees were thicker. There I crossed the gulch, and finally came out on the ridge directly opposite him, perhaps 150 yards distant, and down wind. However, I could not see into the gulch on account of the rounding of the hill side. I spent about 30 minutes dodging around, trying to see my game, and at last thought he had heard me and gone.

I went up stream about 200 yards and descended into the gulch. Then I moved down stream without making any noise, and turned the corners with exceeding care. Presently I came on the bear, with his head in the grass, and fired so quickly he gave no sign of having seen me. For a few seconds I could not see him either, for the recoil jabbed the long sight into my eye. If the bear had been a bad one, I should have been easy meat for him, as my right eye was in such pain that tears blinded the other. The shot landed where it was aimed, however, half way between the eye and the ear, and he sank on his belly and died.

He turned out to be a female, and small at that; perhaps 150 pounds in weight. I never could understand what made him shrink so. There was no other bear with him; the tracks proved that. A good many big bears that get away would probably pan out on the same scale, if they could be stopped.

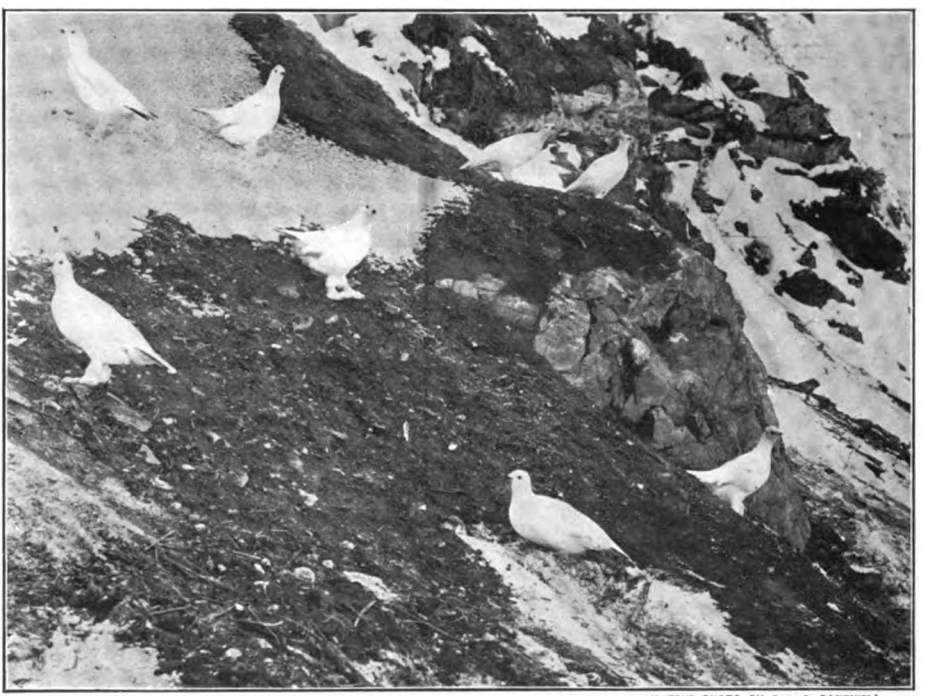
My partner came up soon after, and we skinned the little bear and packed the meat to camp. It was *skookum muck-a-muck* (good food). However, we did not relish it so much after a few days, so we decided to take another hunting trip. Jack, who had helped me pack in the bear meat, would not go, nor would Tom; so George and I set forth. He also had a Winchester .30-30 with about 6 inches longer barrel than my carbine.

We climbed the mountain together, and took lunch in a sheltered spot. Near us a colony of marmots whistled their suspicions of our appearance, and the smell of our cooking. I was surprised to see them so far North, 65°. George shot one, to make sure, and as far as I was able to judge it was the same old soft, innocent looking, fat little Colorado prairie dog with the jerky tail. It must have been a chilly life for them, because, while the ridge on which we were lunching was practically bare, there were several small glaciers in shady places. The altitude must have been 7,000 feet or more.

After lunch we met our first ptarmigan, and I got him. Others kept bobbing up in front of us all day, often with young ones just able to fly. One hen, in trying to take my attention from her brood, permitted me to get so close that I tried to kill her with the butt of my carbine. We shot 5 only,

as we were out for bigger game aud could not afford to spend ammunition on birds. We traveled along the ridge parallel with our creek, meaning to go around the head of it and return on the other side. The ground was firm and generally covered with lichens, wild flowers and a plant bearing small red berries somewhat like cranberries. Forget-me-nots were plentiful.

Everywhere we saw the peculiar foot-prints of caribou, and kept a sharp look-out for these animals, but without avail. At length we reached a peak opposite the head of the creek, and started down to



AMATEUR PHOTO BY GEO. G. CANTWELL.

AFTER LUNCH WE MET OUR FIRST PTARMIGAN.

cross the saddle connecting with the opposite ridge about a mile away. This wind-swept saddle hung in a gentle curve like a slack rope from ridge to ridge, and was totally devoid of cover on our side, the vegetation having a yellowish cast. I was about 400 yards in advance of George, and a little way up the opposite slope I sat down on a pile of rock to wait for him. Just as he joined me he exclaimed suddenly in the most excited manner,

"Coom awa doon off thot rock, mon! Coom doon! Luk at that moose! Kip quiet! Sit still! Coom doon, mon! Coom doon!"

I kept cool, however, and obeying his third injunction, I saw a moose walking slowly along the side of the ridge to which we were headed, taking a mouthful here and there, and apparently unaware of our presence. Soon he lay down and I ducked behind the rocks. We had by that time recognized the animal as a caribou, and we conspired for his capture.

About half way to him there was another outcrop of country rock, but we could not see our way clear to getting behind it as the ground was too open; and it would be a long shot anyhow. To the right was a hill, so backing away to lower ground we went around the hill and down into the timber of the gulch beyond it, which we had observed to lead directly to the game. Coming up the gulch we could see him lying in the same place, and kept behind the trees until they thinned out so we had to go on hands and knees through the hardhack. As we were crawling along we crossed a huge bear track, and quite fresh; but we had plenty of that kind of meat in camp, and kept on. When we got within about 200 yards of our quarry, some rising ground favored us and we stood up to rest our knees.

Sneaking along quietly, we got within about fifty yards, but the rising ground had become steep, and we were in a quandary. After further consultation, we decided to rush him, and up we went, puffing like lo-

comotives. We came in sight of him at about my favorite distance, 39 feet and 11 inches. He had just got up and was about to sneak off. I fired first and struck a large knot on a bush. George fired and punched both the animal's ears, making him shake his head. It was then up to me, and I reckoned it was time to quit fancy shooting and get that meat; so I held on his shoulders and he was ours. Then we sat down to get our wind.

The caribou was a bull, with large, symmetrical horns in the velvet. Part of his old hair was clinging to him in patches, giving him a seedy appearance. The new hair was glossy black, and as short sa that of a horse. We found the bullet in his pine. We cut him in 2 just North of the diaphragm, leaving the hide on.

While I was preparing lunch George was annoyed by a small animal in the slide rock just above him, which gave a "fell screech" at frequent intervals. He shot it and I was able to tell him that it was a little chief hare. I had never seen one, but remembered a photograph of one in RECREATION some time before.

We had a packstrap and slung the hindquarters of the caribou, heels up. It was a heavy pack, about 125 pounds, and we relieved each other every mile, reaching camp in about 3 hours, dead beat.

The fat on that buck's rump was fully 1½ inches thick, and ran up his back in a pad about 10 inches wide. There was so much of it that we used nothing else for frying the meat while it lasted, which was a week. The meat we dusted with pepper to keep off the blow flies, and it proved efficacious.

We built a bake oven and had a famous roast; we fried the meat, we broiled it; we ate it as often as we could find room for it, and it was the finest meat I ever tasted.

A MOUNTAIN LULLABY.

HATTIE H. LOUTHAN.

Over the range in the shadowy West,
Bringing you rest,
Safe in your nest,
Dream-birds come droning you here on my breast,
Hush-a-bys soothing and strange.
The sun has rolled over the rim high and steep,
Star-eyes with baby are playing bo peep,
Wide-awake cares are beginning to creep
Over the range, far over the range.

Over the range, in her snug silver nest,
Sinking to rest,
Low in the West,
Softly the moon, with her hands on her breast,
Joins in the songs sweet and strange.
The wind tucks the clouds round the peaks cold and bare.
Sleepily kisses the colombine fair,
Then drifts the day with its trouble and care,
Over the range, far over the range.

Over the range, at the Night Queen's behest,
Dark'ning the crest,
Far in the West,
Old Mother Sleep, in her slumber-robe dressed,
Comes, bringing Shadow and Change.
Softly they smother the sunset so bright,
Slowly the candles of heaven they light,
Sweetly they beckon the lingering night
Over the range, from over the range.

PARTRIDGE SHOOTING IN INDIA.

C. E. ASHBURNER.

A year or two ago Dr. W. O. Blaisdell, of Macomb, Ill., imported some chikor partridges from Kurachee, in Sind; also some black partridges. The former are, I believe, now thriving in the vicinity of Macomb, but the latter have from various causes come to untimely ends. There is nothing to prevent black partridges from doing well in the States, as they are numerous in the Southeast of Europe and in Asia Minor. The francolin is to my mind the most beautiful and most gamy-looking bird in existence. They lie well to the dog, when flushed rise straight up 25 or 30 feet, and then fly like bullets. I am surprised that none of the shooting clubs or owners of game preserves in America have tried to introduce this bird. It would be far better game than Bob White.

The francolin could be shipped from the Southeast of Europe with little risk; but can not be brought through the Red sea without immense mortality. This is caused, I think, by the difficulty of getting the birds watered several times a day, and of preventing the sailors from deluging them with salt water when washing decks. On these occasions the drinking vessels provided for the birds are filled with salt water, and no one thinks of emptying and refilling them with fresh water. They are generally placed in charge of the ship's butcher; and water is water in his opinion, whether salt or fresh. Having made many voyages to and from the East I speak whereof I know.

Some time ago, while on a visit at Mussoorie, I was told by a friend that he had seen a large number of chikor near the Jumna suspension bridge, about 10 miles out of Mussoorie.

A few days later saw me on my way to Chakatra. On my arrival at Lohari, on the right bank of the Jumna, I sent for the headman of the village to enquire from him the most likely place to find chikor. He consented to take me to a place somewhat lower down the river, where he said they were fairly plentiful.

These headmen are slow going, and the day was nearly gone before we got to our ground. We sent the beaters up the hill about a mile, and ordered them to beat carefully down to where we stood. The beat was the face of a rocky hill, studded here and there with clumps of blackberry bushes. The first thing to put in an appearance was a cock kalij pheasant, which I failed to bag. I had scarcely reloaded when a covey of chikor were flushed, and came like rockets down the hill toward me. Of these I bagged 3 with my 2 barrels. By that time it was dusk, and I determined to wait until morning.

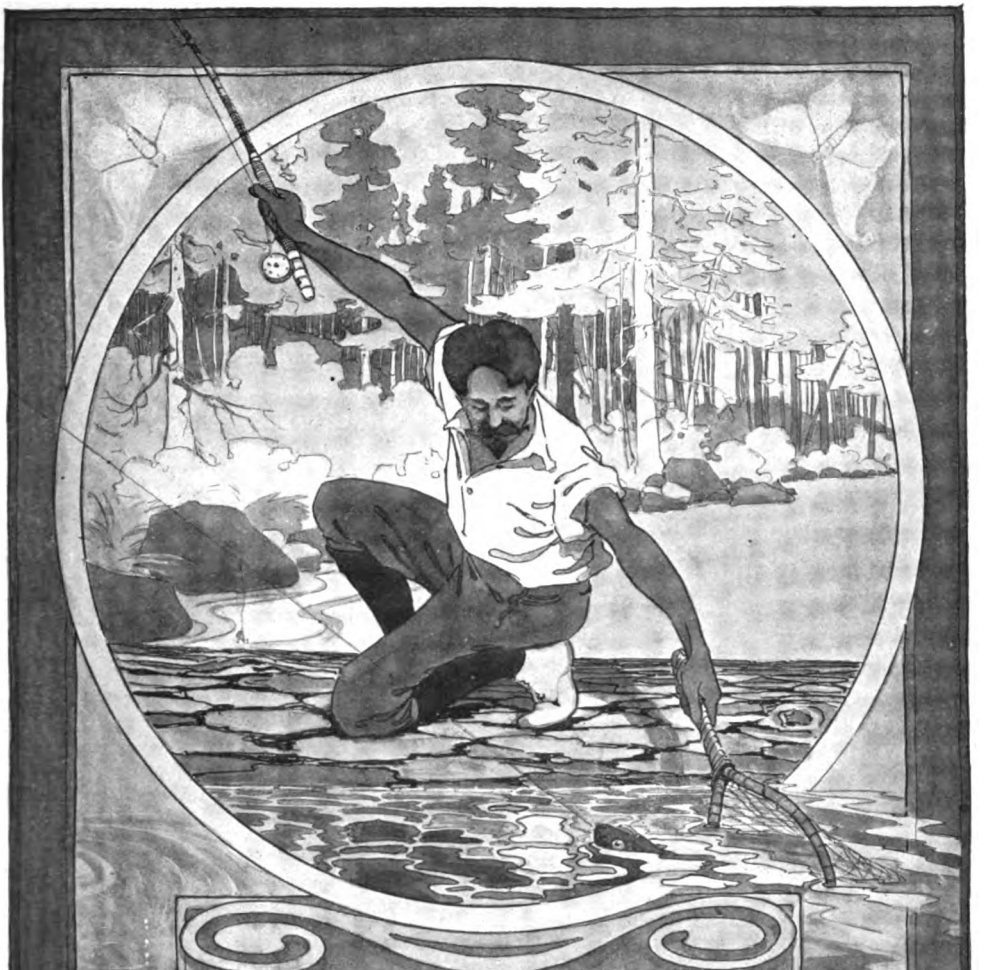
I camped in the vicinity, and next morning started out early, having sent my shikari with some beaters on ahead to mark the whereabouts of the chikors. The birds are easily found, as they invariably begin the morning with their peculiar cry "kuk-kuk-chukak." After a long walk I found my men squatting and smoking on the top of a hill. Then came the usual wrangle as to the best way to beat the ground; each man having a different plan. I ordered them to wait where they were until I posted myself about half a mile lower down, when they were to beat toward me.

Five minutes after I got to my station 2 chikor came sweeping down, and I accounted for both of them. These were shortly after followed by 6 more, out of which I got 2. My position here, however, did not suit me. I moved a few yards farther down, where 5 more chikors dived down over my head, leaving 2 of their number on the ground. My men then came up and, after gathering my game, we had 2 more beats, in which I bagged 8 chikor, two kalij and 2 cheer pheasants.

The following day I made 2 more beats on the hills and shot 11 chikors, 12 kalij and 2 cheer pheasants.

She.—Well, dear, after that you must acknowledge that you are a fool!

He.—I always knew it, darling; but until I married you I managed to keep it a secret.—Life.



ONE DOLLY VARDEN.

Illustrated by the Author. By LOUIS AKIN.

No Dolly Varden had ever fallen victim to my alluring manner of presenting the fly.

It was a hot, dry, lazy afternoon, away up in the Cascade mountains near the base of the Three Sisters, and I had nearly reached camp, with perhaps a half dozen goodly rainbow trout in my basket. I was loathe to leave that cool, refreshing breath of rare, sweet air which seemed to have drifted down from the very glaciers, with the swirling surface of the river. I paused in meditation on a massive log that projected well into the deepening current and was nearly submerged by it. A solitary white butterfly, of the countless myriads gently enlivening the air among the tree tops those late summer days, lay dead on the log. When I idly flipped it off with the tip of my rod I wasn't watching it close-

ly enough to see clearly what happened, but the prompt commotion it occasioned was assurance that it was a matter requiring my closest, immediate attention. I didn't have far to go to find another white butterfly; but that time I took the precaution of hooking him on to a sickly looking grey hackle at the end of my leader before flipping him off the log.

The expected happened. I didn't see any trout, but the suction which carried that fly out of the range of human vision was sufficient.

I struck, and struck again. A little line ran out and stopped. I stiffened and awaited developments. Nothing developed. I strained, and nothing gave way. I slackened, and the line curved gracefully to the current. I struck hard, to wake him up, and there came no responsive thrill.

"Stuck, b'gosh!" said I, for I firmly concluded he was a well educated old stager from the big pool in front of camp, just below, and had deliberately hung that fly up on the bottom of the log, where he could get it when he was hungry. I soon began to feel a presentiment that I was about to lose an old friend, tried and true, in that good 6-foot leader, for no maneuvering afforded any relief. Anyway, the reverse side of a 5 foot log, mostly under water, is an extremely ill favored spot from which to rescue a fishhook. I quickly became discouraged and decided on drastic measures. I slacked away, took the line in my hand, and, with a sigh of farewell, mingled with a fervent prayer that if it must break it might break at a hook, I cautiously but firmly applied the power and held my breath. At first the line seemed to stretch a bit, but did not give way; then, with added strength intended to break something and have it over, it gave still more, but strangely drew back, as though a springy branch was holding it. When, in desperation, I yanked for keeps, I received the delayed thrill that burned well into 2 fingers before I could let go and get rod and reel in action.

That fish wasn't inclined to leave his happy home under the big log for anybody. He took 2 whirls out to the end and back, at first; but he mostly stayed right under me, wrapped his tail around a knot, and left it to me to sustain the strenuous end of the excitement. Once in a while he let go, to wet his tail and take a fresh hold. Then I gained a few inches on him, only to give them back when he wanted them. Never a rush or a break; just that stubborn, tireless pull, with an occasional vicious tug or ugly shake of the head such as I had only experienced before in an effort to coerce a balky horse. The bark must have slipped off his knot so that he lost his powerful hold, for finally I began to prove, inches at a time, that I was the bigger and the fitter; and, with never a rush or a break, I slipped the net under him exactly where I had idly flipped a solitary dead butterfly into the swelling flood an hour before. He was my first bull.

THE FOUNDLING.

REV. E. L. TIFFANY.

From the German of Goethe.

I went in the forest so dark and still,
But seeking nothing: that was my will.

In the shade I saw a floweret lone;
How like a star its wee eye shone!

I would have plucked, but it spoke, so shy:
"Must I be broken, to wither and die?"

With its rootlets all from the mold 'twas torn;
To my pretty garden-house 'twas borne;

And planted again in a quiet place,
It branched and blossomed with added grace.

CANOEING ON THE MICHIGAMME.

C. E. BERRY.

A few years ago there was no finer canoeing trip in the country than a run down the Michigamme river, one of the most beautiful streams of the upper peninsula of Michigan. That part of the country was then too remote from civilization to make the Michigamme a profitable stamping ground for the professional hunter, but with the building up of towns on the Menominee iron range the stream became a favorite with that class of men who are without the instincts of true sportsmen, but kill for market. Shortly after the advent of the professional hunters came the hardy lumbermen. The hungry saws at the mouth of the Menominee river had to be fed, and under the telling blows of the lumber-jack's axe acre after acre of the grand old pines that lined both banks was brought to earth to appease their insatiable appetites. The first time I made the run this devastating process had not begun, and the country was as nature had designed it. The Menominee river and its tributary streams were a sportsman's paradise.

Putting our boat in at Republic, we started on a 75-mile run down stream, to where the Michigamme forms a junction with the Menominee, and in a few hours we were beyond all signs of civilization. The water was just deep enough in most places to run our boat over without dragging on the bottom. The current carried us along at the rate of 4 miles an hour, without any assistance on our part other than to keep the canoe clear of sunken deadheads and rocks.

We would pass beautiful grassy slopes that skirted the shores, our boat scarcely moving, so sluggish was the water. Then in a moment we would be caught in the rapids and whirled between high walls of granite that shot up almost perpendicularly 100 feet. These great palisades were richly crowned with mighty pines. Then would be seen places where nature had been twisted out of shape by a hidden volcanic force, which, with a last mighty effort had turned hills on edge, leaving their high, inaccessible, rocky sides as lasting monuments to its awful power. Here and there massive knobs of basaltic rock showed, by a reddish stain, a hidden deposit of iron ore.

Every mile or 2 our boat would go spinning round and round in big eddies. The anchor would be lowered, our fishing lines cast, and such a reward! The fly would scarcely touch the water when there would be a splash, and the reel would begin to click, click, faster than one can think. Then would commence a battle royal; an inch gained, then lost again. The fight would go on until the silk line and the mechanism of the reel would win, and the gamiest of all fresh water fishes, a brook trout, would be floundering in the bottom of the boat. And what trout they were! Some of them weighed not less than 3½ pounds, with flesh as firm as an athlete's muscles.

At every turn in the river we saw deer; some of them gamboling in the water, others feeding leisurely on the tender grass that grew in the bottom of the stream. Sometimes they were in 2's or 4's, and again there were 12 or more in a bunch. They sometimes stood staring at us until the boat almost touched them. Then with a bound or 2 they would gain the edge of the woods and watch us until we were lost to sight around the next bend. In one afternoon's run we counted no less than 52 deer. Had I the wizard pen of a Longfellow I could not find words to do justice to the charming pictures they made.

But how different was the trip I made a few years later. The trout had all but disappeared from the brown waters of the river. The few remaining deer did not stand staring at us with a look of wonder in their great brown eyes, but went bounding out of sight at the first glimpse of our approaching boat. There were plenty of signs that there were still a sufficient number of these beautiful animals to attract the professional hunter, for between the Fence and Deer rivers, a distance of 5 miles, we saw the decaying carcasses of 9 deer, stripped of their pelts, lying on the shores of the Michigamme. Some of them were monster old bucks, others little suckling fawns; but all had been killed by one man, who bartered away his little soul for the pittance of silver he received for the hides of these gentle creatures.

Michigan was tardy in recognizing the fact that the deer in the upper peninsula need protection, but is trying hard to make up for the neglect, and now has good game laws. Despite these, however, and the vigilance of the game wardens, the professional hunter still thrives. 'Tis true with not such great success as in former years, but he is still much in evidence. One of these hunters is reported to have killed no less than 72 deer during the summer of 1898.

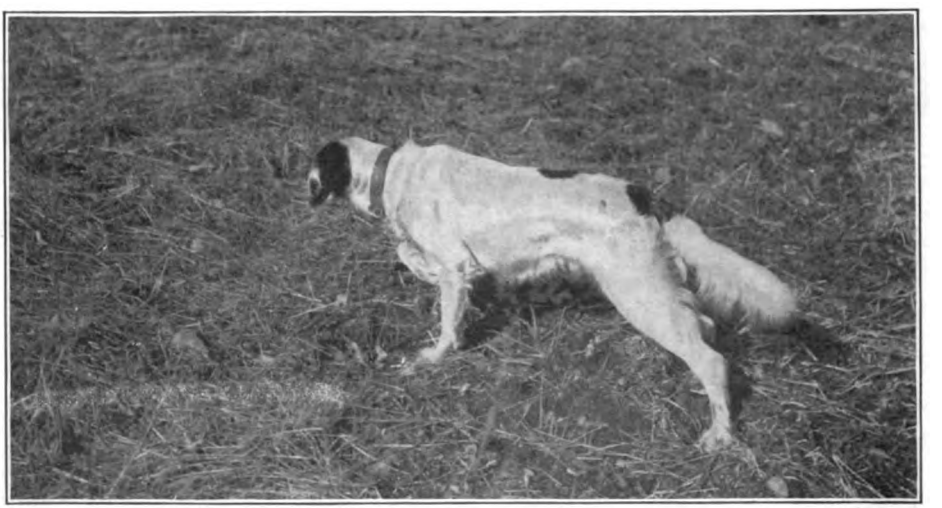
But the absence of the game is the least noticeable change in the aspect of that country. The immense forests of pine that once adorned the banks of the river and

made such a noble background for the ever-changing panorama, have entirely disappeared. In their place remain their ugly, charred and blackened stumps. It does not seem possible the hand of man could have wrought such a change in so short a time.

Nor have the pines been the only trees that have suffered, for the lumber-jack was closely followed by terrible forest fires that swept everything clean in the old choppings but the pine stumps. What were once beautiful groves of maple, birch and ash are left standing, but their branches do not respond to nature's call at spring-tide and send forth tender young shoots. They are dead. The sap has been dried up in their veins by the fires. Such a scene is the sublimity of desolation. It is grand but depressing, and makes one feel as though he were walking through a neglected graveyard. Even the birds seem to feel the desolation and do not tarry long in the withered branches of the trees.

The elms, which are by far the handsomest trees in Michigan's forests, and worthy rivals of the pine for the title of king, are still standing, having thus far escaped the onslaught of the axe and withstood the attacks of the flames. But they are doomed. The Indiana hoopmakers have discovered their existence, and are moving their mills to the upper peninsula. In a few years every elm that now stands like a grand old sentinel on the banks of the Michigamme will have gone into hoops to encircle the staves that hold annexation sugar.

Even the hills of rock have not escaped. The miner heard of the dark reddish streaks that stained them and came with pick, shovel and drill. The ugly windlass stands above many a pile of broken rock, and does not improve the scene.



AMATEUR PHOTO BY B. L. NICHOLS.

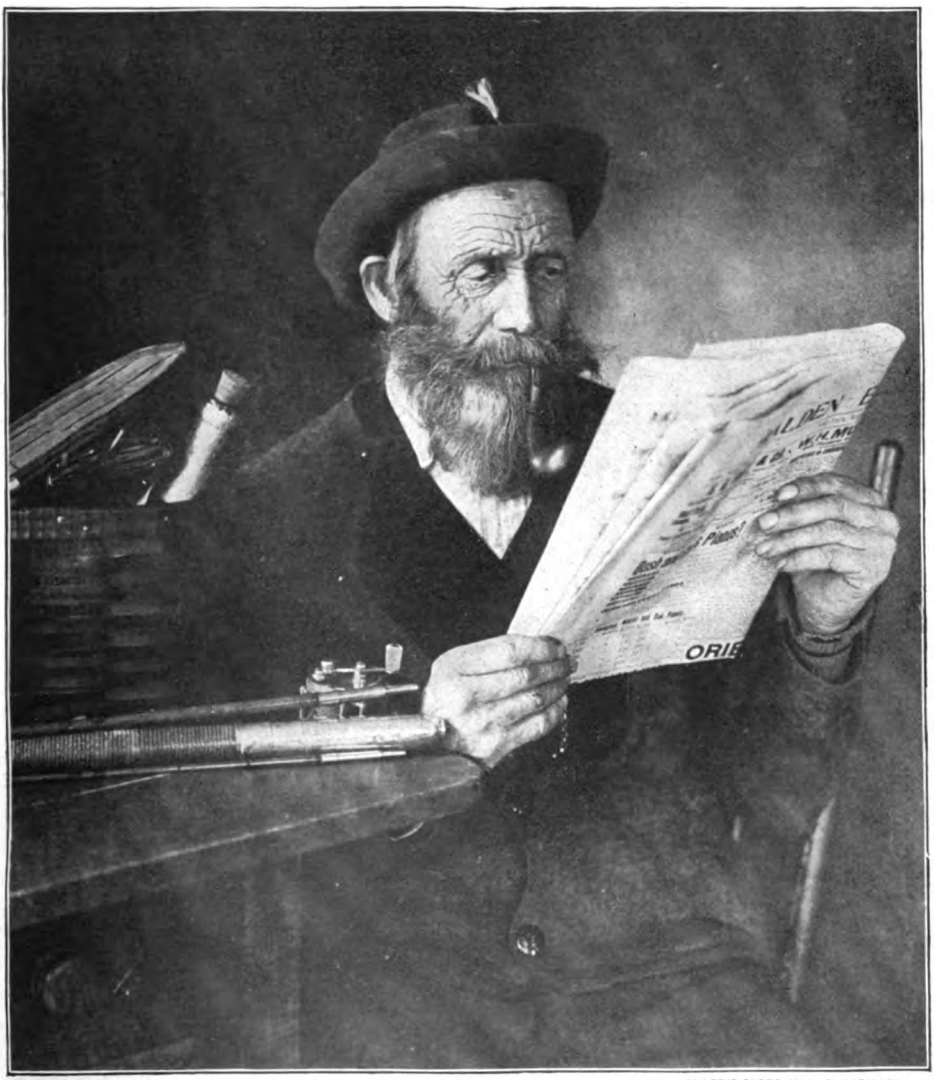
DASH AT CLOSE QUARTERS.

Winner of 3ad Prize in RECREATION'S 6th Annual Photo Competition.

JUNE DAYS ON THE UPPER PECOS.

EDWARD G. TAYLOR.

The Pecos river, in New Mexico, seems to be almost unknown to American anglers. In 1889, Mr. W. W. Strong, of Chicago, invited me to visit that stream, as he owned a large ranch near Glorieta, a small station on the Santa Fe railroad. Mr. Strong is an ardent trout angler, but I thought he was joking when he invited me to New Mexico to fish for brook trout, and with a fly at that. However, as his ranch was only 30 miles from the old town of Santa Fe, which I longed to visit, I accepted the invitation, saw the quaintest town in America, fished the Pecos river, and had such a delightful time that I have returned to that locality every season since.



AMATEUR PHOTO BY H. C. ROBINSON

WAITING FOR THE TRAIN TO GLORIETA.

People who know the lower Pecos—that

WHERE THE BROOK COMES IN. AMATEUR PHOTO BY J. W. WILLIS.

sluggish, muddy, alkaline stream that loiters through Southeast New Mexico and Western Texas—can scarcely realize the beauty of the upper Pecos.

That river, from the old town of Pecos, 7 miles from Glorieta, to the source of the Mora river, a branch of the Pecos which joins that stream 20 miles above the Valley ranch, is beyond my powers of description. In the Northeast corner of New Mexico, near the Colorado State line, amid shade and solitude, is a rock on whose face I have carved 3 words, "River of Humanity." From beneath this rock emerges a tiny stream of clear, cold water, which winds and turns, finding a tortuous pathway between and around great boulders and roots of mountain pines. Every few rods it is joined by another small stream, from the melted snow on the mountain top, or a spring.

Flowing swiftly down a narrow, deep gulch, it tears and grinds out a wider path, until it becomes a full grown river, able to hew a mighty pathway to the sea. Its waters are the home of millions of beautiful black spotted brook trout, and the green fields and pastures which border its banks for hundreds of miles bear testimony to the great good it is doing for humanity. The fall of the Pecos river is about 65 feet to the mile, and all that one needs to do, to raise a crop, is to build a small dam across the river, above the ranch, dig a narrow ditch, called *saka*, in New Mexico, and turn the water into the fields.

The nearest railroad station is Glorieta, on the Santa Fe, 7 miles from the Pecos river, near the little Mexican town of Pecos, one-half mile from Valley ranch. There is no hotel on the Pecos river, although visitors can find board with Mrs. C. A. Vilas, P. O. Willis, N. M., at $6 a week. Mr. J. W. Harrison keeps a store at Glorieta, and he will accommodate visitors over night and furnish conveyances and drivers to take anglers up the river. A family named Windsor can care for a limited number of tourists. Their place is not far from where the Mora branch joins the Pecos, and the fishing there is excellent.

Anglers wishing to fish the Mora river, above the forks, should provide tents and camping outfits. A number of American families have built handsome cottages along the river, during the past 3 years, which they occupy in summer. This region is in the lower range of the Rockies, elevation 7,500 feet, which gradually increases in ascending the river until it reaches an elevation of 9,000 feet, near the Mora river.

The Pecos is 25 to 60 feet wide, flows at a rate of 6 miles an hour, and has a great variety of what anglers term "fishy" water; that is, a long reach of shallow, riffly water, then a sharp bend terminating in a long, deep pool, the abiding places of

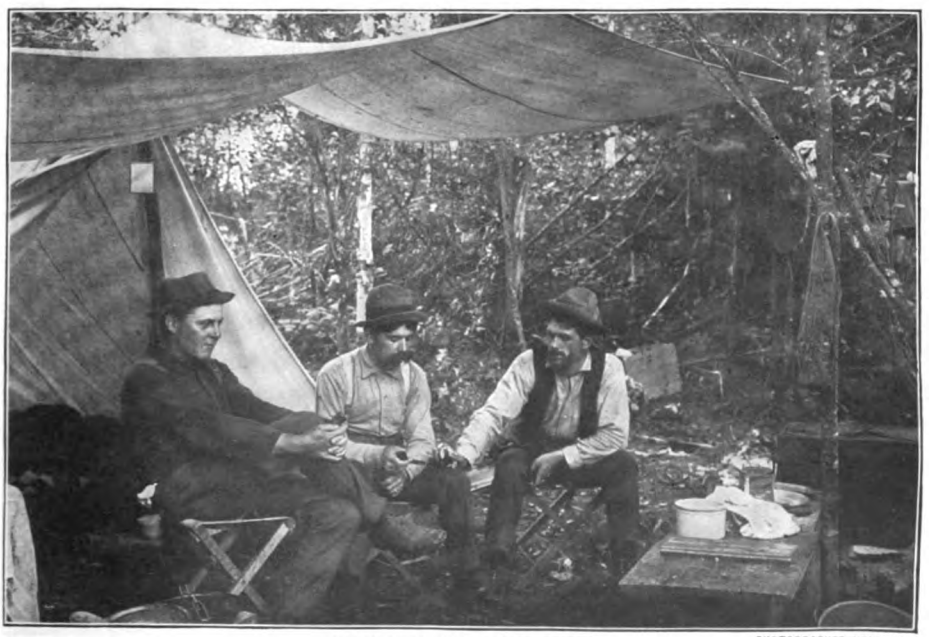
AMATEUR PHOTO BY L. D. LINDSLEY.

A CAMP VISITOR.

the large fish. I usually fish these pools from down stream, using only one fly, which I snap sharply down on the surface of the pool many times, after which the fly is allowed to sink beneath the surface of the water and drift with the current. This is the process by which I catch most of my big trout, and even bass, and it is wonderfully effective.

The Mora branch, 2 miles above the forks, is a stream of clear, cold water, rushing swiftly between narrow canyon walls. The water pours over a ledge of rocks, tumbling madly down into a series of pockets, or pools, where it churns into foam, then falls over another ledge into other pools and longer reaches of more quiet water. The trout there are of the black spotted variety, and they run in size from 6 to 12 inches. The pools swarm with them, and if the angler cares to use 3 flies to the leader, he can hook 3 trout at a cast. I used to whip these pools from below, standing on some rock, from where I could see the trout in the pool above. Using one fly, I could usually tease the largest trout in the pool to rise to it. A royal coachman is the best killer, in that river. I have seen a lady stand at the edge of one pool in the Mora river and, using 3 royal coachmen flies as a lure, fill a 12 pound creel in one hour and 20 minutes, with trout varying from 6 to 10 inches in length.

After reaching a point one mile below the forks, on the Pecos river, the pools are longer and deeper, and the fish are correspondingly larger. From that point down to Pecos I alternate between royal coachman, professor, cowdung and gray hackle, tied to a number 6 or 8 hook. In Colorado streams, the coachman is the fly, but a well tied gray hackle is my favorite fly on any New Mexico or Colorado stream. From a point 7 miles above Pecos to Valley ranch is my choice of the Pecos river fishing, and in June, after the snow water



PHOTOGRAPHER UNKNOWN.

IN CAMP ON THE MORA.

AMATEUR PHOTO BY A. W. FILBY.

TRYING FOR A BIG ONE.

has almost ceased discoloring the river, the water becomes very clear, taking on a deep, transparent, greenish shade. Then the large trout will rise to the fly, and an expert can hook plenty of large fish. Every deep pool in the Pecos river, from old Captain Dalton's place down to Valley ranch, contains big trout. I can whip any of these pools, during June and the early part of July, and catch trout running from ½ pound to 3 pounds. I use a 4-ounce split bamboo rod, 8½ feet in length, a light, enameled fly-casting line, a 5-foot single gut leader, very thin, and only one fly.

If there is any more exhilarating or healthful recreation than fly casting, with light tackle, thin rubber hip boots, under a New Mexican sky, and on the Pecos river, it is beyond my ken. The air is mild, yet tingles with ozone. This is truly the land of perpetual sunshine. A broad brim straw hat affords sufficient shade for comfort, and 2 blankets were necessary to keep us warm at night, for the nights are cool in the mountains.

I once spent a night at the house of Jose Gonsaulus, a Mexican. His ranch is 10 miles up the river, from Valley ranch. I had the best room in the place, and they killed and cooked a kid for supper. The next morning my Mexican host drove me back to the Valley ranch in his wagon. As we reached the summit of the rocky road, I looked down into the valley below, and saw the river, with its green fringe of fields and meadows. At one long bend of the river the meadows were fairly alive with wild roses.

It seemed impossible to leave this charming spot, so we lingered far into September. As I sat in the wagon, homeward bound, once again we climbed the mountain roads. Then I saw the Mexican ponies, tied 5 side by side, trotting in a circle, trampling the grain. Women with black shawls over their heads stood in the doorways of the adobe houses, and waved us a parting salutation. The fleecy clouds hung like feathers over the mountains, that reached away, range bevond range, into unseen space. So we left this beautiful Pecos river region, hoping to return to it in 1902.

Papa.—"Tommy, you mustn't behave that way. Everybody will be calling you a little glutton. Do you know what that is?"

Tommy.—"I suppose it's a big glutton's little boy."—Catholic Standard and Times.

THE OL' MILL POND.

GEORGE W. SLAWSON.

On these balmy summer mornin's
'Fore the sun is in the sky
When the shadders turnin' purple
Tell that day is drawin' nigh;
Wi h a can of worms a squirmin'
Jist beside me on the ground;
You are mostly sure to find me
By the ol' mill pond.

Fer the shadowy reflection
Of the clouds a-sailin' by,
A-tintin' of the water,
With the colors of the sky;
An' the cool green grass a-wavin',
In the medder jist beyond,
Makes it mighty pleasant fishin',
In the ol' mill pond.

So with the robins chirpin'
In the harvest apple tree;
An' the orryole recitin',
Of his sweetest song to me;
With the golden sun a-risin',
It's jist fun to loaf around,
An' fish for perch an' mullets
In the ol' mill pond.

Fer the stretch of dewy medders
Full of misty lines all curves,
Makes a mighty soothin' poultice
Fer a weary feller's nerves;
An' I 'low if this aint comfort,
Then it really can't be found,
When you 're anglin' fer mullets
In the ol' mill pond.

Why! the very frogs a-croakin',
An' the peepers' pipin' low,
With the mooin' of the cattle
In the pasture lot below;
An' the rumblin' of the mill stones,
As the water wheel goes round,
Fill a feller with contentment,
By the ol' mill pond.

So layin' on the grassy bank
An' takin' of my ease,
With the sunshine peepin' shyly,
Thro' the branches of the trees;
A-watchin' of my bobbers,
As they slowly drift around,
I could jist fish on forever,
In the ol' mill pond.

AMATEUR PHOTO BY J. R. PETERSON.

I'M BUSY.

Winner of 29th Prize in RECREATION's 6th Annual Photo Competition.

A TRIP TO THE OLYMPICS.

W. S. JONES.

Toward evening, July 17th, '99, I left my office, in gloomy meditation, and arriving at home, was soon lost in the pages of July RECREATION. I had been ill in early spring, was thin, and getting thinner. I resolved on a trip, and next morning called the ticket agent. Twenty minutes' conversation decided the matter; 5 minutes more and my ticket was made out for a trip to the Olympic mountains.

Next morning, I took the boat, and was soon borne away from hot, dusty, smoking Akron. At Cleveland I boarded the "Northland," of the Northern Steamship Co., and a few hours later we touched at Detroit, a city where cleanliness is held in high consideration. It is a real pleasure to go driving there; Detroit certainly has a broom that sweeps clean. Next came St. Clair flats, just in time for us to witness the finish of a noble fight between a lucky angler and a 5-pound big mouth. The next day we touched at Mackinac. Up the St. Mary's river the scenery is beautiful, and, as the channel is narrow there, the camera clicked every time we rounded a point. At 4 p. m. we found ourselves in the lock at the Soo. As soon as the gates were closed, we made a rapid trip heavenward, being hoisted 17 or 18 feet to a level with the waters of Lake Superior. As the sun went down, we glided gracefuly into those waters. The moon was full, and just enough breeze came over the sparkling waves to make one feel comfortable in a light overcoat. We gathered in knots of 3 or 4 on the deck, delighted with our surroundings, and drinking in the delicious ozone of the Northern woods. If one doubts the healing power of our Northwest, let him sail Superior or Huron for 3 days, and his doubt will vanish forever.

Twenty-four hours after our departure from the Soo, we landed at Duluth, a busy city, some day to be magnificent. The following morning, we boarded the Great Northern Flyer, and were soon spinning along through Minnesota's forests. We made a short pause at Bear lake at noon. Excepting at Blackfeet Reservation, the finest physically developed Indians seen on the trip were at Bear lake. They appear like fighters, and I am sure they are. What a loss it will be to us as a nation if Congress does not set aside this natural woodland park for the preservation of wild animal life. Every sportsman should use all fair means to attain this object.

I went over the Great Northern, and returned by the Northern Pacific. We fairly flew across North Dakota, while rich prairies and vast acreage of wheat passed in review. On through Montana, with her beautiful, rolling prairies, boundless pastures and countless herds. The sloughs were partially filled with water and myriads of wild fowl were seen there. Lazy jack snipe and fat plovers fairly made my trigger finger twitch. Thousands of young ducks were seen here and in North Dakota, some learning to fly and some apparently but a week old. In the distance could be seen a herder on his rocking cayuse, rounding up a bunch of cattle; to the right a slinking coyote, making for a friendly ridge, and away to the left, through the blue haze, a great shapeless mass, our first sight of the Rockies.

To a novice, it is worth the expense and weariness of 3 days' travel to feel the thrill that goes through one's frame at first sight of the Rockies. If one wishes to feel his own insignificance, let him camp in the mountains. Up, up, we went, over the summit just at sunset, and the shadows stole across the valleys, in the gathering twilight as we began the descent. Next morning we arrived in Spokane Falls on schedule time.

A few went North from that point; a few, including me, left that evening by sleeper for Portland, Ore.; but the greater number remained aboard, with Seattle as objective point.

The ride down the Columbia was one never to be forgotten; the scenery was all that could be desired, but, gee whiz! the sand! It required a half hour's shampooing, to get it out of my hair, and I have not so much as some others have.

Portland, with her balmy air, beautiful roses, luscious fruits and kind welcome of friends, should have detained me a month, but I was there to restore my health, so in a week I was *en route* to Seattle. There I secured passage on the "Alice Gertrude" to Port Angeles, for it had long been my desire to wet a line in Lake Crescent.

I was in error, and so warn others. Go to Port Crescent, if you wish to get into the lake by the easiest and quickest route. However, time was no object to me, and I shall always be glad I left the steamer at Port Angeles, for by so doing I met that genial gentleman, Mr. Burt Borrowman. He has a ranch in Eden valley, 9 miles back in the mountains. Nature in all her

true nobility is visible every foot of the way. Wild wood, wild berries, wild life; there's nothing tame in the Olympics!

Mr. and Mrs. Borrowman welcomed me kindly, and all the people who dwell in Eden valley I shall remember kindly. The latch string is always out up there, and their hospitality is proverbial.

Burt and I daily took long rambles in the mountains, he with .30-30 strapped to his back, and I with camera and Horton rod, for we were in vicinity of bear and wildcats, and the best of trout streams. Deer abound in the mountains, but none was killed during my sojourn there, as it was before the season opened.

We could shoot grouse, however, and usually killed one a day, that being all the meat we required. They are big fellows, and get up lumberingly, yet get beyond range quickly. We enjoyed all kinds of trout, and the fruit was especially fine, as was also the delicious wild honey. One day Burt and I left the ranch on a fishing excursion to the famous Elwha river. We cut out several miles by crossing cuts in the mountains by means of fallen trees. When we reached the Elwha, our trouble began. The river was a raging, nearly ice-cold, stream, 200 feet below us, with perpendicular side walls. We managed to get down, by means of logs and clefts, about 100 feet; then climbing into a tree, we began the descent. The base of this tree was on a slippery rock, near a likely looking pool for large trout. When I reached the lowest limb, I found I should need to drop a few feet. Getting around on the side farthest from the river, I let go, and dropped squarely on a wildcat! He was frightened, and with one leap disappeared into a cave, at the mouth of which he was lying.

Dolly Vardens were jumping about, great big ones, but we did not take any of them; they had no relish for our flies. Aggravating? Have you ever been there?

We stretched away for the mouth of the river, 6 miles to the straits of Juan De Fuca. We found the tide out, and as we had our shot guns, we enjoyed an hour's sport with the snipe. We did not score a kill for every shot. I distinctly remember boring some lovely holes in the atmosphere. I do not doubt that a Washington snipe, coming down the wind, covers space faster than shot that is pushed along by nitro. That accounts for some of our misses. "Scaipe! scaipe!" but we pass on, leaving the happy fellows behind us, for we have counted our bag; 6 apiece. It is enough, and anyhow we feel sad over our wantonness. 'Twas the excitement that urged us to slay; next time we will leave our guns at home, and depend on the camera.

Did you ever get truly leg-weary? I did on that occasion, and when the top of the mountain was reached, and a spring discovered, my joy was complete. I would walk 10 miles to-night to taste water from that spring! It was not like the stuff we call water here; it was more like wine.

On the following day we had planned to cross the mountains to Lakes Sutherland and Crescent. Merrily we jogged along through the dense forests. Giant firs and cedars, 7 to 11 feet in diameter at the base, and whose tops seemed to mingle with the clouds, blocked our way. Up we climbed, and our hearts were in tune with our surroundings. As we neared the top, we could almost touch the clouds with our hands, and the air was exhilarating. At the mountain top the sun burst out and millions of raindrops glistened a moment, ere they were absorbed. Burt touched my arm, and turning, I beheld Sutherland at our feet, so peaceful, so far down, that as I bent over the ledge I drew back half dizzy. Lake Sutherland is a beauty spot, and so pleased us we forgot for the time that we had started for Crescent. We fished Sutherland with flies until noon, with indifferent success.

About 2 p. m. I put out a trolling spoon, a common skinner, as an experiment. Soon there came a savage strike, a flash in the sunlight, and then war was on. The battle, however, was short. He was well hooked. I drew him in, killed him in mercy, and we put the spoon away. That was the most beautiful specimen I've ever taken. I thought I had taken a blueback, but have since been informed that they are known only in Crescent, 2 miles farther on. Its dull blue black, soft-tinted salmon-pink sides, and bright silver belly were identical with Crescent's bluebacks. Our admirable hostess, Mrs. Wilson, weighed the trout. Its weight was 5 pounds. She baked it and served it with bread and wild berries, hot biscuits and wild honey. What a repast! We remained at Mrs. Wilson's over night, and next morning went over to famous Lake Crescent. Blue as indigo, nestling among those great red and gray mountains, it has left its impression on my mind so distinctly that I can recall every detail of its beauty and wild surroundings. For years I had longed to behold it, and there I was, bounding over its almost immeasurable depths. All day we passed on the lake, part of the time in an open row boat, part of the day in the little steamer. We landed at last on the shore nearest Lake Sutherland. I backed from the presence of that charming lake as from a throne room.

It was then time for me to return to the coast, and with mingled feelings of gratitude and regret I bade Eden valley and its

kind people goodby. I remained a few days at Port Angeles, rowing, fishing and sailing, and met many genial and hospitable town folks, whose kind words and gracious deeds are lovingly cherished.

I was there but a few weeks, yet I returned robust, glowing with health, hard as nails and weighing 168 pounds. I have enjoyed the best of health ever since, though I have learned to take a 3 weeks' trip up the lakes each August to keep myself in good condition.

SPRING VOICES.

A. M'ELRATH.

Winter's frost-bound blast has softened;
  Snow and ice have left the lane;
Brooks are full to overflowing
  With the residue of rain.

Earth is warming in the sunshine,
  Old year's grass is drying out,
Oft is borne on hazy azure
  Brownie mallard's hearty shout.

From the knoll in last year's mowing,
  'Mong the members of his flock,
'Cross the slough and mouldy fallow
  Booms the gallant prairie cock;

And from posts of lofty vantage
  On the fence's topmost rail,
'Cross the field of last year's stubble
  Pipe the meadow lark and quail.

Gentle voices of the springtime,
  You allure me from my work,
Telling of what compensation
  You can give an office clerk.

Then away with trade and barter!
  Worry, take thyself away!
For I love my mother, Nature,
  And I'll visit her to-day.

AMATEUR PHOTO BY DR. SNOW.

DID YOU STEAL MY BREAKFAST?
Made with Premo Camera.

HELD UP BY MOONSHINERS.

J. E. ALLEN.

The events I shall relate happened several years ago, but for reasons which will become apparent, I have heretofore deemed it unwise to give them too much publicity. I flatter myself I am as courageous as the average man, but I am sure discretion is sometimes the better part of valor, and that it is often wise to keep one's word when it is pledged to a desperado.

Five of us, including a negro boy, went on a 2 weeks' camp hunt in the Gulf Hammock. That famous hunting ground is in Western Florida, and extends 100 miles North and South. It is about 20 miles in width, densely wooded, and alive with game of many kinds.

One bright October morning found us in the center of the hammock, our 2 tents pitched about 100 yards from the railroad, guns in order, dogs in good condition and all hands ready and eager for action. The whole morning was consumed in setting up camp. After lunch Donaldson, Dewson and I shouldered our guns and, taking the hounds, struck off into the forest in search of deer.

Our progress was much retarded by the thickness of the undergrowth, but in half an hour we reached a slight elevation, where the ground was dry and comparatively clear. Donaldson, who had hunted there before, pointed to a path which at that point diverged in 3 directions. He stationed Dewson and me under 2 large oaks, in positions commanding the 3 paths. Then, cautioning us to keep quiet and not to get excited, he took the dogs and made a detour to drive the deer toward us. We had not long to wait before the hounds opened, at first indistinctly, then fainter and fainter, until the sounds were lost altogether. After a few minutes, which seemerd hours, we caught the sound again, faintlv at first, but growing louder, and we knew the dogs were coming in our direction.

Presently a slight noise caused me to turn, and there, coming up the path was a buck and a doe, side by side. I barely had time to fire before a large tree would have hidden them from me. It was a snap shot, but at the report of my gun the doe leaped into the air and fell dead. The buck sheered off as my companion fired, and went away on 3 legs. With a cry of "I got him!" Dewson ran after the buck, and both were soon lost to view.

Donaldson came up in a few moments with the dogs, and, after viewing my prize and congratulating me, asked where Dewson was. I said he had broken a buck's leg and thought he could run him down. Donaldson blew his horn and Dewson answered far away. Donaldson laughingly said, "He may have caught him; I'll go to see. Stay here until we come back." And calling the dogs away from the dead deer, he started.

The buck seemed badly wounded, as he left a trail of blood that was easy to follow. After I was left alone I could hear Donaldson's horn for a short time, but could not hear Dewson's answer, and finally the forest was as still as death.

I bled the deer and tied the feet together, so I could slip them over my head and carry the carcass easily. Then I sat down to wait for my companions. I waited some time and blew my horn but got no answer. I repeated the blasts at intervals for about an hour, but still no response. As it began to grow dark I shouldered my deer and started, as I supposed, in the direction of our camp. There my troubles began.

As I re-entered the undergrowth I found it difficult to proceed. The ground was soft and wet in places, and my feet often sank into the mud over my ankles. Occasionally a loop of vine caught me or the deer, and once as I stepped into a soft place my gun caught in a vine and I pitched headforemost into a hole, with the deer on my back. I was almost strangled before I could extricate myself; but I got out and struggled on until it became so dark I could no longer see my way. Having gained a co.nparatively dry spot I sat down to think things over. I supposed I was near camp, and blew my horn, but got no answer, except from the owls, with which the forest seemed to be alive.

Seeing I was in for a night of it, I proceeded to make myself as comfortable as possible. I gathered a lot of wood and made a fire. Though hungry as a bear I did not want to cut my deer, and was forced to content myself with my pipe. As I settled down with my back against a tree to study over the situation I heard the howl of a panther some distance away, probably at the place where I had bled the deer. I did not like that at all. I had a good gun and plenty of ammunition, but could not help feeling lonesome. To add to my discomfort I suddenly saw, directly in front of me, on the other side of the fire, a pair of blazing eyes. I immediately fired at them and they disappeared.

Then to put my deer out of reach of

prowling animals I hoisted it and my gun into a tree by means of my belt and a piece of cord I happened to have in my pocket. After securing the carcass in a crotch, I found another place for myself, and pulling a lot of Spanish moss, I made a cushion, which gave me a comfortble seat. I then went down, rebuilt my fire and made 2 others, so I had fires on 3 sides of the tree. Returning to my perch I entered on my vigils for the night. I fully expected a visit from the panther; and the longest night of my life was spent in that tree. Now and then a pair of shining eyes appeared, at which I promptly fired. Some time after midnight I wounded a skunk by one of these random shots, and the intolerable stench with which he repaid my aggression so nauseated me that I almost fell from the tree. Another of my shots must have hit a large animal of some kind, as I could hear it running away through the bushes. This was probably the panther.

With this diversion and occasional trips to the ground to replenish my fires, I passed the night without a thought of sleep. With the first faint ray of light I lowered my deer and gun, and shouldering both, struck out in search of the camp.

I don't know how much ground I covered that morning, but I was dead tired when I saw, a short distance away, an opening in the forest, which I supposed was the railroad. This encouraged me to renewed efforts. I soon reached the edge of the clearing and was surprised to find, not the railroad, but a rail fence enclosing a 20-acre field of sugar cane. I was about the center of the field. The cane was considerably higher than my head, but I could see over the top of it the roof of a cabin, with smoke curling upward from the chimney. I congratulated myself on my great luck in having at last reached a human habitation, where I could obtain the rest and refreshment of which I was so much in need.

The cane was planted in rows sufficiently wide to admit of my crawling through it, and, with the deer and gun on my back, I made the journey for the most part on hands and knees. It was wearisome work, and I had to stop often to rest. Finally I reached the end of the row, and rising on my knees I parted the leaves of the cane and peered out. Imagine if you can my consternation when I saw a villainous-looking man standing about 20 paces from me, a Winchester rifle at his shoulder, with the barrel leveled straight at my head. He had heard the commotion I made in pushing my way through the cane, and taking me for an animal of some kind, was prepared to give me a warm reception.

"Hold up, partner," I cried; "don't shoot!"

"Drop that gun," was his reply.

I dropped it without ceremony.

"Come out here."

I slipped the feet of the deer over my head and, rising, stepped into the open.

"Hev ver got any more arms about yer?" the man asked.

"No," I replied; "nothing except my hunting knife."

"Wal, jes' drop that, too; pitch it to'rds me."

I did as he ordered and assured him I was not looking for trouble of any kind. He told me to walk in front of him to the cabin. I did so, and was met at the door by another man, who motioned toward a stool, and I sat down.

"Now what are yer doin' here?" said the man with the gun. "Tell it, an' tell it straight, d'ye hear?"

"Certainly," I replied; "I am only too glad of the chance to tell it, but please give me a drink of water and something to eat first. I have been lost in the hammock since yesterday noon, and am so tired, sleepy and hungry I can hardly talk."

"Yer go on an' tell yer story an' ef we find yer all right, yer can have all yer want to eat and drink; but ef yer story aint straight, yer'll git all the sleep yer want an' yer won't need nothin' else. Do yer understand?"

During this conversation I noticed a powerful odor of rum in the room. Casting a rapid glance around, I saw a number of new barrels, such as are used for shipping syrup. Outside was a mill for grinding cane, and, under a nearby shed, a small still or worm for distilling purposes.

Though but a hasty glance, it was sufficient to show me the predicament I was in. I knew I was in the hands of moonshiners; that my safety depended on the simplicity of my story and my being able to verify it. So, bracing up, I told them in as few words as possible how I had come to the hammock with a party to hunt, where our camp was and the names of my companions; how I had been left alone in the forest, had passed the night in a tree, and how in my wanderings I had discovered their cabin and crawled through the cane in the hope of finding the friendly assistance which I felt sure they would extend to me. I finished by saying that my brother was conductor on the train which would pass through the hammock about noon and if they would see him, he could satisfy them that I was all right in every way.

"Wal," said the spokesman, "yer tell a purty straight story an' I reckon yer'e all right. But look here! I'm goin' ter find out, an' ef ye've lied to us yer'll never leave this cane patch. D'ye understand?"

I told him I understood and had no fear

of any investigation he might make. After telling his comrade to take care of me, he went out. My guard took a small dipper from the wall and dipping it half full, from a tub containing several gallons of liquid, handed it to me. It was pure rum, but I drank it down, and nectar of the gods would have tasted no better at that time. I then begged I might have a short nap. The man threw a bed-spread over a lot of cane leaves in the corner of the room, and in a minute I was sound asleep.

When I awoke the sun was well over to the West. Both men were present. They had eaten their dinner and put aside a bountiful supply for me. The food was coarse but wholesome, and I don't know when I ever enjoyed a meal more. I noticed the meat was fresh venison. After finishing my dinner and settling it with a dipper of rum and water, I turned to my captors and asked them what they intended doing with me. The man who had been away answered:

"I have been to Otter creek and seen yer brother and I hev seen yer camp and hev found that yer story is correct. So yer can git in the cart whenever ye'er ready an' I'll take yer to the railroad an' show yer the way ter yer camp. But before yer go, let me tell yer: we are a makin' of rum here and hev ter look out for ourselves. We know yer, know where yer live, and all about yer, an' we've got friends in yer town. Ef yer ever tell anybody ye've been here or ever seen this place, ye're a dead man. D'ye understand?"

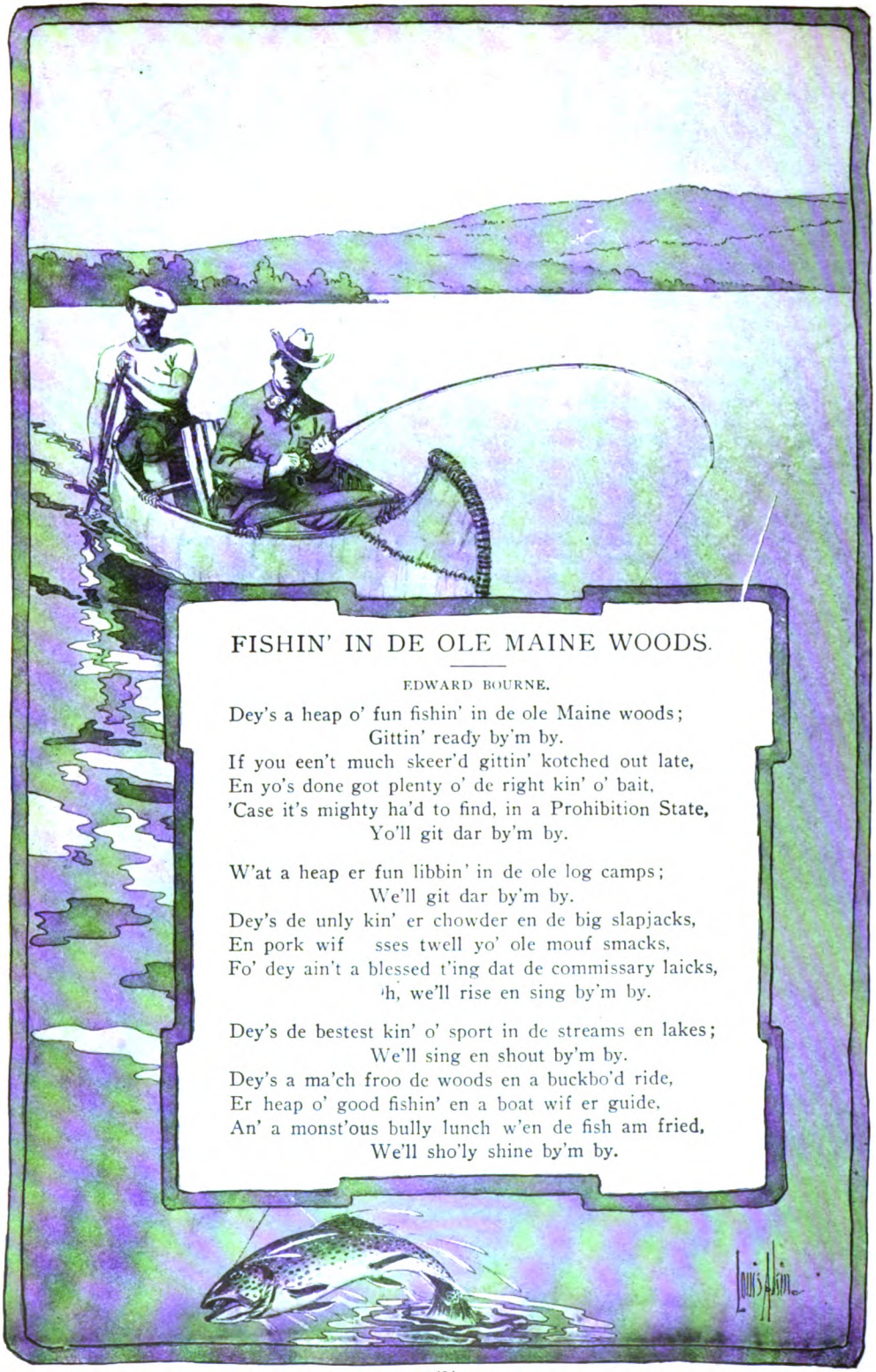
I assured him I understood the whole thing and knew how to keep my mouth shut. I did not tell him, however, that in spite of his long hair and bushy whiskers I recognized in him an engineer, who, a year or 2 previous had, while drunk, blown up his engine and lost his job. I announced myself ready to be off and climbed into the cart. He put in my deer, and getting in himself, drew the lines over the little old mule and headed for the forest. He made many turns through the woods, but followed no road and after a while stopped beside the railroad. He had said nothing all the way except to warn me of the certain death that awaited me if I gave him and his partner away, even to the boys in camp. I got out of the cart and he told me to follow the track 500 yards and I would find the camp. Once more shouldering my deer and my gun I bade him good-bye, and in 10 minutes more received a hearty welcome from Sam, who was the only man in camp when I arrived. The rest of the party were out searching for me. A few shots and incessant blowing of a horn by Sam soon brought them in, fagged by their long search, but much relieved at seeing me safe.

I invented a story which satisfied them and made me the hero of the hour, without giving the moonshiners away; but I had the devil's own time convincing the boys that they did not smell rum on my breath.

AMATEUR PHOTO BY F. N. WOOD

TAKING A SUN BATH.

Winner of 26th Prize in RECREATION'S 6th Annual Photo Competition.



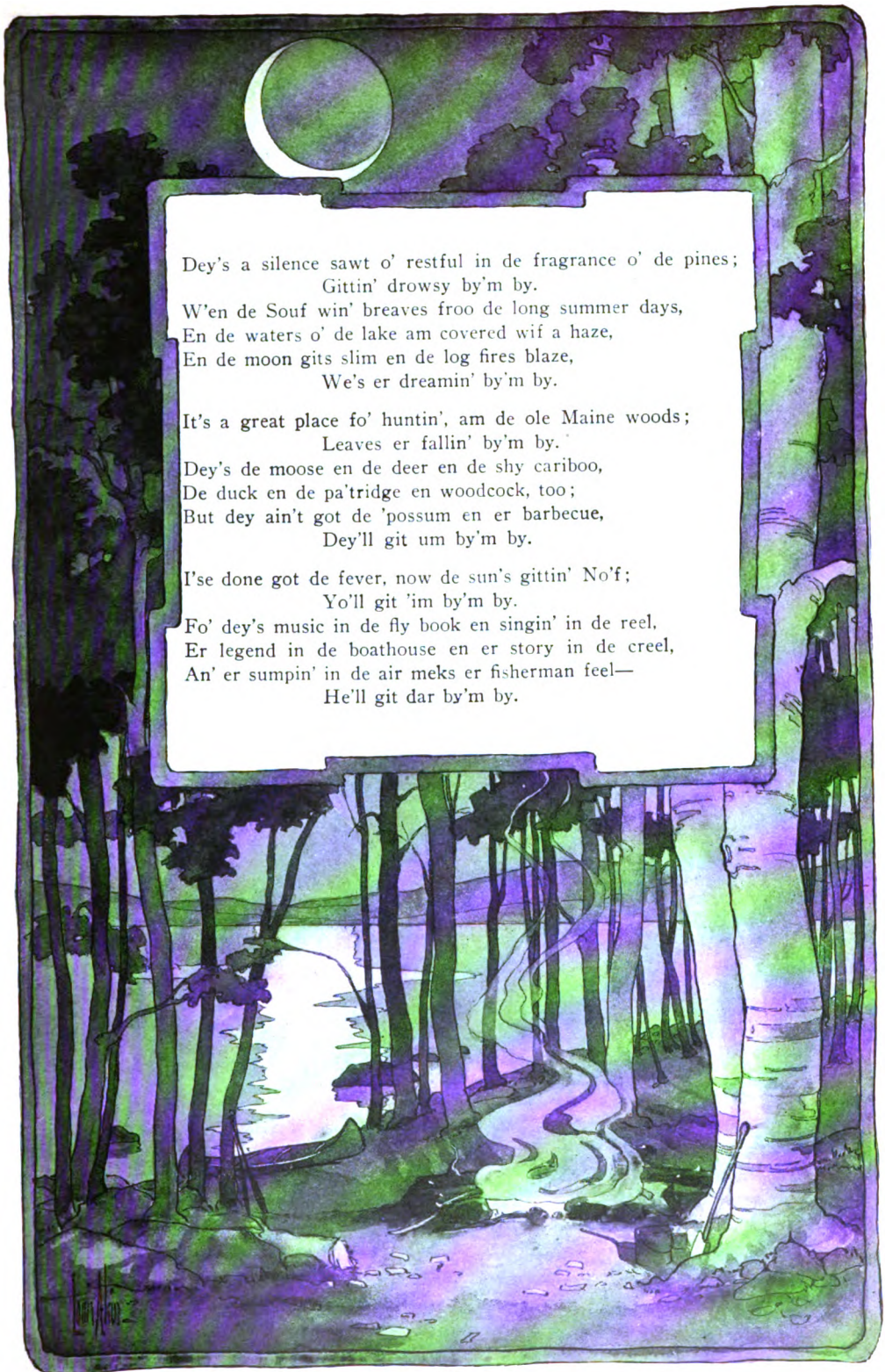
FISHIN' IN DE OLE MAINE WOODS.

EDWARD BOURNE.

Dey's a heap o' fun fishin' in de ole Maine woods;
Gittin' ready by'm by.
If you een't much skeer'd gittin' kotched out late,
En yo's done got plenty o' de right kin' o' bait,
'Case it's mighty ha'd to find, in a Prohibition State,
Yo'll git dar by'm by.

W'at a heap er fun libbin' in de ole log camps;
We'll git dar by'm by.
Dey's de unly kin' er chowder en de big slapjacks,
En pork wif sses twell yo' ole mouf smacks,
Fo' dey ain't a blessed t'ing dat de commissary laicks,
h, we'll rise en sing by'm by.

Dey's de bestest kin' o' sport in de streams en lakes;
We'll sing en shout by'm by.
Dey's a ma'ch froo de woods en a buckbo'd ride,
Er heap o' good fishin' en a boat wif er guide,
An' a monst'ous bully lunch w'en de fish am fried,
We'll sho'ly shine by'm by.



Dey's a silence sawt o' restful in de fragrance o' de pines;
Gittin' drowsy by'm by.
W'en de Souf win' breaves froo de long summer days,
En de waters o' de lake am covered wif a haze,
En de moon gits slim en de log fires blaze,
We's er dreamin' by'm by.

It's a great place fo' huntin', am de ole Maine woods;
Leaves er fallin' by'm by.
Dey's de moose en de deer en de shy cariboo,
De duck en de pa'tridge en woodcock, too;
But dey ain't got de 'possum en er barbecue,
Dey'll git um by'm by.

I'se done got de fever, now de sun's gittin' No'f;
Yo'll git 'im by'm by.
Fo' dey's music in de fly book en singin' in de reel,
Er legend in de boathouse en er story in de creel,
An' er sumpin' in de air meks er fisherman feel—
He'll git dar by'm by.

WHAT BECOMES OF THE HORNS?

M. A. WILCOX.

I have been taking RECREATION over 4 years, and have noticed at different times articles on the disappearance of shed deer horns. While grouse shooting near Lake Nippissing, last September, I found 2 shed horns, from different animals. One was found in a clearing and was not touched; but the other, found in dense underbrush, was badly chewed by some animal, the guide said porcupines. I enclose photo for inspection. You may readily see where the rodent got in his fine work on the different prongs. The teeth marks seemed to be fresh, and, no doubt, it would not take long to entirely reduce the horns. I made my negative with a Dallmeyer lens, indoors, 15 seconds, 100 stop, with electric focusing lamp, cross light.

Bell: I saw Tom Green and his wife out wheeling last night.

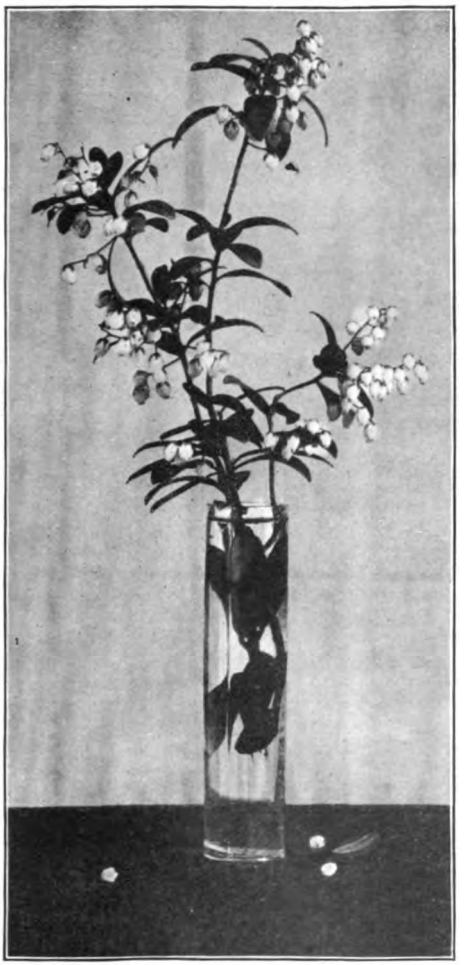
Nell: Tandem?

"No—baby-carriage."—Exchange.

WINTER BLOOMING HUCKLEBERRY. *ANDROMEDA.*

C. E. PLEAS.

One must see these blooming in their native haunts to appreciate their grace and beauty to the fullest. To do this one usually has to wade into the heart of the cypress swamps, and there, from a few inches above the water to 10 or 20 feet



A NATIVE OF FLORIDA.

high, he will find them climbing the trunks of the largest trees, creeping in and out of the bark and clinging so closely as to appear as if growing out of the wood. This, too, without roots above ground. How it passes under the tough, close-fitting bark of the cypress is a problem, yet it is difficult to trace the stem, as there are no leaves except on the young wood. The accompanying photo illustrates the glossy, evergreen leaves, with rolled edges, but it can not do justice to the waxy, white blossoms. They are so clear as to readily show the stamens through the sides. In appearance they are the most delicate flowers imaginable, but in reality, they are exceedingly firm and retain their form and beauty for days after cutting, without water. The blooming period lasts 2 months or more, January to April, and when a flower is done, it falls with as much noise as a big drop of water. There is no edible fruit, but instead there are dry seed pods. When a tree bearing one of these plants is cut down the plant takes possession of the decaying stump, rooting in the inner bark and sending up numerous stems, a foot or so high, laden with the tiny white bells. The photo is reduced about one-half.

WHEN THE PERCH BEGIN T' BITE.

W. M. SCHULTZ.

There's a sort of dreamy feeling
  Comes a-creeping over me,
And I'd like t' be a boy again,
  Just as I used t' be.
Get up early every day,
  Just as she's getting light;
Sneak out my pole and sail for th' creek
  When th' perch begin t' bite.

Seems as though I can smell th' wind
  That's blowing from the wood,
Full with the cedar's pungent breath,
  My lord! but it does smell good
And I'd like to be,
Just once again,
  When the days are warm and bright,
By the deep still hole
Just below the dam,
  When the perch begin t' bite.

Let's see. Train leaves at 7,
  That would put me there at 9;
Go down first thing in the morning,
  By George! That would be fine.
I wonder where my reel is?
  And which boy's got my rod?
Guess I could get a can of worms
  By pullin' up some sod.
Here, Jim, go up and get my grip;
  Step lively now and light!
Your dad's going back on his native heath,
  I'll bet them perch 'll bite!

SHEEP OR GOAT?

FRANK MELVIN.

One day in November, 1901, George Reed and E. H. Underhill were hunting bear in the Sangre de Cristos, a spur of the Rocky mountains, which forms the Eastern boundary of the San Luis valley in Southern Colorado. When near the timber line they separated. Mr. Reed continued toward the top of the range and soon left the timber far behind. When he reached an altitude of about 12,000 feet, the ground became much broken and rocky, which necessitated slow and careful traveling. While making his way cautiously over this broken country, Mr. Reed espied what he took to be a cinnamon bear cub, about 200 yards distant. The opportunity for a shot being favorable, he immediately fired and the animal fell. At the sound of the rifle shot, 5 strange animals, resembling sheep or goats, sprang from among the rocks and started off up hill. Mr. Reed is an old-timer in that country, having hunted in the Rocky mountains 20 years; and after that long an experience, to have a new animal sprung on him, right in the heart of his favorite hunting grounds, was almost too much. He simply stood and watched them make their escape, without firing another shot.

After his surprise had passed, with the fleeing animals, he advanced to the one he had shot and found that he had indeed killed a strange animal, that resembled both the domestic sheep and goat. He at once went in search of Mr. Underhill, who helped him take the animal home. Mr. Underhill being a taxidermist, mounted the animal life size and has it now in his possession, but still without a name.

The animal killed resembles a domestic sheep, in being low and blocky-built, with short legs. It is a female, about a year and a half old, stands 25 inches high at the shoulders, its body being 30 inches in length from the point of the shoulder to the after part of the ham. The neck is short and extends straight out from the shoulders, there being no curve from the top of the head to the top of the hips. Its ears are about 3 inches long, are thin, and hang down close to the sides of the head. It has horns about 3 inches long, which extend upward and backward from the top of the head. It has a heavy coat of fine wool, almost fur, slightly curled, 8 to 12 inches in length, extending down to the knees and hocks. In color it is light buff on the breast, seal brown on the shoulders, coal black around the central portion of the body, then seal brown merging into buff on the hind quarters. From the knees and hocks down, the hair is short and black, as, in fact, all the points are black; nose, tail and tips of the ears. While in general make-up it resembles a domestic sheep,

its tail, which is short, its ears and its horns resemble those of certain families of the domestic goat.

Mr. Reed claims that 2 of the 5 that escaped, were almost white, while the others were colored like the one secured.

ANSWER.

This is an exceedingly interesting find. The animal shown in the picture is a goat, not a sheep. It is apparently one of a flock that has resulted from a pair of domestic animals, previously kept in confinement, but now run wild. Your careful and conscientious observations, and the thorough and painstaking manner in which you have followed up the discovery are most creditable to you.—EDITOR.

"What prompted you to rob this man's till?" asked the judge of the prisoner.

"My family physician," was the reply. "He told me it was absolutely necessary that I have a little change."—Opportunity.

A PROMINENT GAME PROTECTIONIST.

Washington, D. C.

Editor RECREATION:

I am a member of the House Committee on Territories to which was referred the bill of Congressman Lacey which aims to provide a game law for Alaska. As I am deeply interested in the cause of game protection the Committee selected me to write the report on the bill, which with the bill has been presented to the House for consideration.

HON. FRANCIS W. CUSHMAN, M.C.

I enclose you herewith a copy of the Alaska game bill with the amendments proposed by the Committee, and no doubt some of the matter contained in the report or the bill may interest your readers. We hope to pass this bill before Congress adjourns.

With my best wishes for the great success of your splendid magazine, of which I am a regular reader and an enthusiastic admirer, I remain,

Francis W. Cushman.

Mr. Cushman is one of the youngest members of Congress, and a prominent member of the L. A. S. He lives at Tacoma, Washington, and is therefore thoroughly conversant with the needs of Alaska in the way of a game law. Mr. Cushman is fond of hunting and fishing, and had many interesting experiences before reaching a position in the American Congress. The following appears in the Congressional Directory:

Born at Binghamton, Iowa, May 8, 1867; educated at the high school and Pleasant Plain Academy, he assisted himself in securing an education by working as a water-boy on the railroad in summer, attending school in winter. After the completion of his school course he worked for a time as a section hand on the railroad. At the age of 16 he moved to Wyoming, where he remained 5 years working as a cowboy on a ranch, in a lumber camp, teaching school and studying law. He then moved to Nebraska and practiced law, afterward going to Tacoma, Washington. He was elected a Member of Congress from that State in November, 1898.

THE FIERY GROTTO.

DR. L. E. HOLMES.

Near Bridgton pond, where strangers stray
From city cares the summer's day,
A grotto lies secreted good,
Around, above, with leafy wood.
No passer-by along that way,
Or poet musing on his lay,
Or peddler with his ware's display,
But halting there entranced he stood
Near Bridgton pond.

Within all o'er the fiery spray
Of sumach glows—a furnace play.
I passed thro' as Elijah would,
Unscorched, except in burning mood
To paint that fiery grotto gay
Near Bridgton pond.

A FUTURE GREAT.

The 3-year old sportsman who poses in the accompanying photo, does not claim to have bagged the duck, nor does he expect your readers to think so. When he becomes skilful enough to hit a greenhead on the wing with a .22 caliber rifle, he will want to have his picture taken in a boat, with a stretch of open water, button willows and rushes for a background. The truth is he cares little for either duck or gun, and

AMATEUR PHOTO BY W. B. WEIR.

FRANK.

is willing to pose in the back yard, togged in overalls, the reward being a stick of candy immediately forthcoming. He is known by his little friends as Frank.

W. B. Wier, Fort Smith, Ark.

AMATEUR PHOTO BY OLIVER LIPPINCOTT.

BRIDAL VEIL FALLS.
Made with Bausch & Lomb Plastigmat Lens.

BUTCHERY IN OREGON.

Following are letters I received reporting the work of some game butchers in Portland:

Enclosed find clipping from the Oregonian of November 14th. These are some of our "sportsmen" in Portland. Mind, not market hunters. This has been going on for years, and there are plenty more of the same calibre. These people will sneak in the back door of the market, sell ducks, and then howl about market hunters. I have seen passenger pigeons in countless thousands. Where are they now? Also have I seen the buffalo disappear from the face of the earth; the antelope nearly following suit; and if these people are not restricted, where will our ducks be in a few years? I gave up hunting 20 years ago because I have not the heart to kill things that enjoy life as well as you and I do. I have never meddled with anybody's affairs, but when it comes to such wanton slaughter, I feel it my duty to call your attention to it. I do not believe in killing just for the sake of killing.

Olnas, Portland, Oregon.

The clipping to which Olnas refers is as follows:

The Deer Island Sporting Club has, at Deer Island, 36 miles below Portland, on the Columbia river, a game preserve comprising 3,500 acres. The greater portion is covered by lakes, ponds and sloughs, the favorite resort of water fowl of all kinds.

The club shoots every Sunday. At their last shoot they bagged 395 ducks, mostly mallards, but including specimens of every species of duck which visits this region, from a teal to a canvasback.

Under separate cover I mail you copy of photograph of some bristlebacks. These swine are business men and clerks occupying good positions, but they can not afford to hunt ducks on a preserve without killing the limit and selling them on the market to pay the expense of their destructive work.

Each year that the State Legislature meets brings better laws and more RECRE-

ATION readers. Scarcity of game sets the sportsmen thinking, and in RECREATION they find a remedy.

C. N., Portland, Oregon.

On receipt of these reports I wrote the men mentioned, asking for confirmation. One of them replied as follows:

We did make quite a killing the day you refer to, but not to the extent stated. Nine of us killed 289 ducks. We sent 180 ducks to the Children's Home, Good Samaritan Hospital and St. Vincent Hospital, of this city.

C. N., Portland, Oregon.

ANSWER.

The fact that you gave a lot of the ducks to certain hospitals does not mitigate your sin in the least. This is an old excuse, and has been put up by hundreds and perhaps thousands of men before you. It is simply stretching the cloak of charity to cover sins that have been going on since the beginning of the world. It is a wonder the ancient garment was not torn to pieces hundreds of years ago. Children do not appreciate game birds. Those children would have been just as well pleased if you had sent them a few carcasses of veal or mutton or a few quarters of beef. So would the doctors and nurses connected with that institution; and those animals can be reproduced by the farmers and ranchmen in your State every year. The ducks you killed do not belong to your club simply because they stop there in their Northern and Southern flights to feed and rest; nor because you bait them there with grain and shoot them when they go to get their breakfast. These birds belong to the sportsmen in general, and this great army of good men will scarcely concede the right of a few members of your club to slaughter 289 of these birds in a single morning under the flimsy pretext that they are to be given to some charitable institution.

However, the killing was not so disgraceful as the display you made of your vanity and your swinishness by stringing up these birds and standing yourselves up about them to be photographed. That was a most disreputable piece of work and I am glad to have a chance to show the world how infamous a lot of men can look when they show up in their real characters.

EDITOR.

AMATEUR PHOTO BY J. BAUER.

HEN HAWK.

Winner of 21st Prize in RECREATION'S 6th Annual Photo Competition.

THE TREE THAT INFLUENCED ME MOST.

Let others sing in praise of men,
Of art and books galore;
My song shall be of impress deep
Wrought by the woodland's store.

Of aspirations that the oak
Taught from her acorn small;
Of perseverance that my soul
Learned from the chestnut tall.

The maple fair, the stately pine,
Each willow by the brook
Guided my childhood's careless thought
In upward ways to look.

But yet 'tis true beyond dispute,
As memory's leaves I search,
The tree that influenced me most
Was mother's little birch.

SARAH A. FAUNCE, in Life.

Lobsters usually don't agree with us. Indeed, about the first mark of a lobster is his not agreeing with us.—Puck.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman.

WHEREIN BLOOD WAS WRONG.

Unionville, Ohio.

Editor RECREATION:

I notice in February, 1902, RECREATION the letter received by Mr. Pratt, chief warden of the Michigan Division of the L. A. S., from a Mr. Blood, of Conneaut, Ohio. This letter is unique and interesting. I also read with interest your editorial on the letter, and I take the liberty of writing you in regard to your roast, especially as I am much interested in your publication, not having missed a copy since 1896. I am unacquainted with Mr. Blood, but I know a number of such old gentlemen, who are illiterate and uneducated, for the reason that at the time they should have been obtaining an education they were helping to make a garden of this wilderness; and it is due, in a large part, to these same backwoodsmen that we have such a country as the famed Western Reserve, which is noted for the wealth and refinement of its rural and city population. I know that these old sportsmen love to hunt as long as life lasts, for it was born in them, and I also think that as law-abiding sportsmen there can be no fault found with them. It makes no difference what vintage his bed quilts were grown in, or how many patches he uses on his bullets. He is usually a man who can not spend his hundreds or thousands of dollars each season on his hunting trips, and does not feel like paying a guide to do something that he can do better himself; but he does love to hunt. Mr. Blood, wishing to abide by the game laws of Michigan, writes a gentlemanly, if an illiterate, letter to a man who is in all probability paid a salary to furnish to the public just such information as he asked for. It is, in my opinion, not only unbusinesslike, but ungentlemanly in Mr. Pratt to send you the letter for publication. You know it is not the man who uses a muzzle loading gun who kills the game. It is the man who goes into a blind with 2 or 3 modern guns and a man to load and clean them for him, who kills his 75 to 100 ducks in a few hours' shooting; or the man who hires one or 2 guides to show him a deer, and "who would not know a red squirrel from a rabbit unless told the difference by a guide." I am in favor of strict game laws, and do not stand up for the violation of the game laws of any State, no matter if unjust. When the editor of RECREATION roasts a man because he wishes to obtain information in regard to the game laws, even if he is illiterate, is from the country, does not use the latest Abercrombie sleeping bag, or the most modern small bore rifle, the editor is in rather poor business. I, therefore, take the liberty of expressing to you, and I hope to all RECREATION readers, my displeasure at the appearance of so unjust an article in the official organ of the L. A. S.

Jay C. Goddard.

ANSWER.

I did not criticise Mr. Blood because he asked for information about the game laws, but because he complained that the laws of Michigan did not allow him to sell game. He said he had previously sold all the game he killed, except one ham which he tried to bring home each year, and which was, very properly, seized and confiscated by the game warden. Mr. Blood says, in effect, that he must kill the 3 deer allowed him by the law, if he goes to Michigan, and inasmuch as he is not allowed to sell it or bring it out, must leave it on the ground to rot. It is this inordinate thirst for blood which I, in common with thousands of decent men, object to. I am trying to convince all sportsmen that true sport is not regulated by the size of the bag; that a man may have fun in the woods in other ways than in killing to the full limit of the law or even beyond it.

You are in error in assuming that Mr. Pratt is paid a salary for furnishing information to the public. On the contrary, he works for nothing, boards himself and pays his own expenses. He is the Chief Warden of the Michigan Division of the League of American Sportsmen, and, like thousands of other members of it, is spending his time gratuitously and investing his money in the work of protecting the game and educating the public to higher lines of sportsmanship. He answered Mr. Blood's letter promptly and fully, then sent it to me, because he thought it might prove interesting to the thousands of readers of RECREATION; and so it has.—EDITOR.

CONNECTICUT GAME LAWS.

Norwich, Conn.

Editor RECREATION:

Our last Legislature made a bad mess of the game laws, in that the opening and closing days of the season were not well defined. It repealed an old law, overlooked another and substituted still another, so it is impossible to determine which is effective. I talked with several lawyers on the subject and their opinions differed widely. Some said the season was October 15 to December 15; others, October 1 to Decem-

ber 1; and some said to January 1. In fact, the above 5 dates were arranged in every possible combination and the same insisted on as being the final solution of the problem. The learned men who framed the law undoubtedly intended to make the open season October 1 to December 1, and so it was at last interpreted. The bag of ruffed grouse was limited to 5 a day for one man, 36 in the season; an excellent provision.

There is practically no shooting before October 20th, on account of the leaves still hanging on the trees. I know of no one who killed more than 3 grouse in one day before that date, and it was not because the birds were not plentiful. The first day I went out I raised no less than 50 grouse, more than I had ever seen here before. I only got 5 shots, however, killing 2 birds, and I had as careful a dog to aid me as I have ever owned. The birds were wild and no dog or man could get within range of them. So practically the open season is but little more than a month. When the law allowed shooting in December more birds were killed then than in October and November combined. The cold would drive them into the swamps, and they would lie until almost trodden on. This year they stayed in open woods. They got the best of the market hunter even, and with more birds than ever to start with there ought to be a great increase next spring.

Bob Whites were plentiful in the spring, but not during the fall. I am at a loss to account for their disappearance. Woodcock were plentiful. I shot 11 one day during the flight, and 10 another, and stopped both times before I had hunted half the ground I started out to work. They were small and poor in spite of their abundance.

The Legislature should leave the law as it is, and devote its energy to enforcing what is already good enough. What is most needed is a real, live, wide awake warden or 2. Of course if the sale of game could be stopped altogether that would be perfection, but I despair of that at present. Thorough enforcement of the present laws would be a great step. Game is sold in large quantities in this city now, even though the law prohibits the possession of it. Thousands of birds are shipped to New York during the season from this county. One man boasted that he shipped more than 1,000 grouse and quail last year. Agents representing New York dealers go all over the country offering large prices for game. I would be willing to wager that I destroyed 50 snares while out hunting the first of the season. A good warden would get on to these things, wouldn't he? In a nearby town a deputy was appointed the other day, and he immediately went to work for all there was in it. He snared a few birds himself for a starter, and then went around sticking them in some other fellow's snares. Then he would arrest his victim, prosecute him, and pocket half the fine. He is making a good living out of it, I do not doubt. Lorenzo Blackstone.

A GROUND SHOT; WITH REASONS.

Lubec, Me.

Editor RECREATION:

On the evening of October 30 I happened to drop into the hardware store and found Jacko, as the boys call him, just bristling for a hunt. He proposed that we start at 3 a. m., in order to be in the woods around Porcupine hill when the grouse began to feed. We arranged to have the night watchman call us at 2.30 the following morning.

At the agreed hour we struck off across the fields in the moonlight, and both enjoyed the 2-mile walk to Porcupine. Jacko chose the North and I the South side of the hill, and we entered the woods. I skirted the edge a short distance and then followed an old wood road that carried me back 2 or possibly 3 miles. Going in I put up a few birds, but it was not yet light enough to shoot.

On the way back I saw, and shot on the ground, a splendid bird, as plump as he could be. I presume some RECREATION readers will be horrified at my shooting a bird on the ground; but opinions differ as to what is really sportsmanlike. As yet I fail to see that the wing shooters are any better than I am when they employ a dog to find and flush the birds. Almost anyone can shoot the limit if he has a good dog. When a man finds his own game, the bird stands a far greater chance to get away. In thick cover a good shot does well to bag one out of 10 birds flushed, doing his own hunting. With a dog a poor shot ought to get half the birds. When a ruffed grouse goes up from under a man's feet without warning it takes a mighty cool hand to stop it. If I can still-hunt a good shot I take it, whether sitting or flying, and shall do so as long as other men use bird dogs. I do not class such men with ferret hunters, but the difference really is one of degree, not kind.

Continuing my hunt, I came out at nearly the same place where I went in. Seeing nothing of Jacko, I struck across a clearing for a spot that I thought might hide a bird or 2. On the way I saw a porcupine taking his breakfast, and going along as quietly as possible I came right up to him. The look of surprise he gave me caused me to laugh outright. He was an enormous old fellow, and I think would weigh 50 or 60 pounds. He did not appear afraid of me, and I got down on my knees and

stroked him with a small stick. The boys told me after I got back that I should have shot him, but I do not kill everything I see in the woods. I am glad I let him go; I may want to play with him some other morning, for we had a good time, and he seemed to enjoy it as much as I.

Not being able to find Jacko, I started for home, with one bird out of 4 flushed, and was in the office at 8 a. m. doing business. W. G. Fanning, D. D. S.

A TURKEY HUNT AT RUM POINT.

Bunk's branch and Josh's branch meet at Rum Point and empty into the St. John's river through a thick swamp of cabbage palmetto and cypress trees. It is just the place for an old gobbler to show you what he knows.

Dan, Tanner and I left home on horseback about 9 a. m., and arrived at the hunting ground by noon. After we had selected a place for camp we started out in different directions. Dan went West; Tanner, East; and I went down by Bunk's branch. I found plenty of fresh signs and sat down to try my skill at calling. If you think sucking on a pipe stem or turkey bone in any key you may happen to strike is all that is required you will find yourself mistaken when you come to try it on a 2 or 3-year-old gobbler. At every false note you make you will see his neck stretched, and saying "tuck, tuck," he will take a few steps in the other direction.

While I was seated on a log, waiting and watching, I heard the report of a gun just above me, and, thinking it might drive something my way, I remained quiet. Then I heard a second, third and fourth report. Wondering what it could mean, and knowing this was Dan's first turkey hunt, I started for the place where the last report sounded. Reaching there I found Dan greatly excited.

"Where was I?" he shouted. "Where was I sitting?" Just then a hen flew from a tree she had pitched in during the bombardment, and bang! went Dan's gun into the ground.

"There goes another!" he cried. "Take me to the place where I was sitting. There were 5 or 6 walked right up to me."

All the damage he had done by his fusillade was to cut off a branch of palmetto 3 inches in diameter. Tanner came to camp at sundown with 2 gobblers. My only shot was at a bird at long range that Dan had scared half to death.

Next morning we started at daybreak to catch the birds on the roost. As before, we went in different directions. I managed to get a hen within gunshot and killed her, and Tanner shot another. But Dan looked blue. He said;

"I was lying flat on my stomach with my gun standing against a tree about 6 feet away, when 4 turkeys, with their heads together, looked over the blind at me, not 10 feet away. And I lay there afraid to breathe and watched them walk off."

I asked him why he did not jump up quickly and fire before they could get out of range.

"Thunder!" said he, "I never thought of that!" H. B. Beidler, Chuluota, Fla.

STATUS OF THE ALLARD HERD OF BUFFALO.

Missoula, Mont.

Editor RECREATION:

I have had a long talk with one of the Allards, relative to the buffalo herd.

Charles Allard, Sr., died some years ago, and his estate was in court for settlement, a decision having been rendered about a year and a half ago. The family consisted of a widow, 2 sons, now both of age, and a daughter who is yet a minor. The widow has since married again. The buffalo herd was owned conjointly by Allard, Sr., and Michael Pablo. Shortly after the decision of the court, making division of the property, Joseph Allard sold to C. E. Conrad, of Kalispell, 38 head of buffalo, which have been placed on Conrad's ranch. Last week Joseph Allard delivered 5 cows and 3 bulls to parties in Iowa He told me he had 9 more sold, and, I believe, not yet delivered. New York parties have taken 2. This makes a total of 57 I know of sold by Joe. The share of Charles, has, I am told, been sold to the Northwestern Live Stock Association, and, I understand, will remain on the reservation, except as taken out for exhibition purposes. The daughter's share is not yet sold.

Deducting all the animals sold, there will yet remain in the herd 220 full-blooded animals and 65 head of graded stock. The larger portion of these belong to Michael Pablo, who had a half interest with Allard. Pablo holds a high valuation on his animals; perhaps high enough to permit heavy sales. Last year there were 65 calves. About half the cows have calves each year. The fertility of the herd does not seem to be on the decrease, and the proportion of calves is as great as in past years, as nearly as I can find out. Mortality among calves is about the same as for domestic animals. The cows that are half-breeds are fertile with either buffalo or domestic bulls, but I am unable to find that the same is true with graded bulls with buffalo or domestic cows.

While the herd is being broken into badly, it would appear that many years must elapse before it is entirely dispersed. Fifty or more may be sold annually with no

decrease in the numbers of the herd. It is well cared for and looked after. The animals are made to know man. Yesterday, at Plains, 2 buffaloes were killed for Rowley, of New York, and Allard himself killed one. It seemed a pity to see them shot down in a corrall, surrounded by a gaping crowd of curiosity seekers.

M. J. Elrod.

AT OCOSTA BY THE SEA

For a long time I had been promising myself a trip to Ocosta, by the sea, and a duck hunt on South bay, an inlet of Gray's harbor. So with black Bruce, Sam and I boarded the train at Elma, full of hope and sure of a good time. Arrived at our destination, as far as railway communication was concerned, we found a hotel, partook heartily of supper, persuaded the cook to feed the dog, and went out to talk hunt and engage a guide and a boat.

We were out betimes in the morning and started for South bay on a full tide. At the duck grounds our guide discharged himself and we set out to shoot ducks. Of all that we that day encountered, mud came first, water second, grass third, and ducks fourth; but the sun shone and the ducks flew high. We waded mud, pulled the boat, hid in the grass and shot ducks until 6.30 p. m. At that hour we collected our kill and turned the prow of our boat homeward. It was a grand experience, that pull of 4 miles under a cloudless sky with a big moon and the great double beacon of the Westport lighthouse winking its eyes at us alternately all the way back to Ocosta. Great swells coming in from afar tossed our frail boat as if it had been a feather. So rough it was that when we had made fast to the dock we could scarce keep our feet. The only way to reach the top of the dock was by a perpendicular ladder some 20 feet long. Up that I climbed with both guns and the ammunition, while Sam made one end of a rope fast to the dog's collar. He then tossed up the loose end of the rope to me and I hauled Bruce up in a jiffy. Then Sam, though I ought not to tell, said he was seasick, and I had to go down, scratch around in the boat and get up the ducks. That done we hied us to the hotel and ate supper.

We were up early next morning and walked far out on the long wharf to take a final look at the breakers rolling in from the mighty Pacific before we took the 8.30 train for home. What about the ducks? Well of that I am loth to speak. Truth to tell, Sam has the better gun and is a better shot than I, and so killed more ducks. But bear in mind we are not game hogs.

T. A., Elma, Wash.

BOYS AGAINST SPARROWS.

Naturally a good many "don'ts" creep into RECREATION besides its standing admonition, "Don't be a razorback"; and sometimes I notice an equally meritorious "do." One example I wish particularly to applaud. It is the story in February issue of the little boy who loaded his shells with mustard and ground-raked English sparrows, an act as commendable as it was unsportsmanlike. Please, Mr. Editor, give us more stories of that sort and print them in capitals. Every small boy reader of RECREATION is its sworn disciple, and I hope you will continue to turn their willing minds toward the undoing of the sparrow.

I live in a large old fashioned house, the windows of which are ornamented with the deep mouldings and arched caps once so popular. In mouldings and arches the sparrows built nests year after year, despite all manner of neck-endangering exploits to dislodge them. Our verandas and blinds were calcimined with filth, our garden was stripped of peas and corn, and our poultry was robbed of food by swarms of feathered pests. In vain I tried to poison them; they soon learned what to avoid and did it religiously.

It was then that I found an efficient ally in the son and heir of the house. He was pompously proud of his first air gun, and to him I preached a crusade against the sparrows, cheerfully furnishing all the shot he could use. It took some time to perceptibly diminish the number of our enemies, but he kept at it. I could not tell now how many he has killed, but he thought it an off day when he could not get 10 or 12. He has become the owner of a double barreled shot gun and a rifle, but as he can not use these within the city limits, he still picks off the sparrows with a first class air gun.

He has, virtually, cleaned the place. The sparrows all know that gun. Seldom more than one or 2 are seen in the yard, and no man ever got out of the way of a grizzly more willingly than those sparrows vanish when the boy appears in the yard with a gun. Boys may never be able to kill all the English sparrows, but they can make a beginning.

Maude Meredith, Dubuque, Ia.

CLOSED MARKET EFFECTIVE.

We may yet live to see the market for game a thing of the past. The thing which has been, is, and always will be the keystone to not only this arch, but all others in this world is the desire of all to get money. If it can be got by killing the last deer, antelope, or elk for the market, or the last bird for the millinery store, somebody is going to find a way to supply that

market. As long as a market for game exists so long will there be an incentive for the pursuit of game, and some way will be found to smuggle a large proportion of it to those who will pay the price. All the protective associations and game wardens in the world can not stop it entirely. To try to stop the slaughter of game through laws restricting the bag and the season, without first closing the markets, is like trying to build a wall from the top down. It might be done, but a lot of time and money will be wasted in the attempt. Since the Lacey bill was passed, and the sale stopped in our State, less game is being killed. Men who were formerly market hunters, doing nothing else from September 1 to December 1, and after that spending their Sundays in killing for the market, which seemed to be as open after the season closed as before, have been put out of business. They now hold down a job at any old price, hunting little, simply because there's no market. Under the Lacey law and our laws combined, we can make it so hot for a Michigan violator that he will think Hades an icebox as compared with this State. The result is that we are having less chances at violaters than formerly, but are getting a bigger percentage of convictions. Nowadays when our game wardens get after a man his "goose is cooked" so often that others stop taking chances. Any other method will be slow, tedious, expensive and inefficient.

J. E. Pratt, Grand Rapids, Mich.

FROM EAGLE PASS TO TAMPICO.

I spent some weeks last winter hunting in Mexico. On the way down I stopped at Eagle Pass, Texas, and camped 3 days with Messrs. Bonnet and Delsalona, who are the best hunters at that place. We were all armed with Savage rifles, as were most of the sportsmen we met. Our camp was in the brush about 15 miles from Eagle Pass. All night we could hear bucks fighting in the woods, and coyotes kept up a continual howl from 10 o'clock until dawn. On the first morning of our stay we found a buck near camp. He was at the opposite side of an open space about 80 yards wide. I aimed just forward of the point of his shoulder and fired. The buck ran a few feet and dropped. Delsalona came running up and asked if I got anything. "Surely," said I, as coolly as if I had done nothing all my life but shoot deer. In fact, however, it was the first wild deer I ever saw.

The region is an ideal one for hunting. Deer are abundant, the brush is not too thick and there are plenty of water holes. There are blue quails without number, and a few Bob Whites. Ducks may be had, during their season, at the water holes.

From Eagle Pass we went to Tampico, Mexico. The intervening country consists of mountains and valleys. The lower levels are densely covered with brush and cactus, and abound with deer, panthers and bobcats. About 20 miles South of Victoria there is also abundance of large game, but hunting must be done at night with a jacklight. In the lagunas all along the coast are thousands of ducks, geese, herons and aquatic birds.

Mexico has no game laws that I could discover. The Visitador Politico will give a permit to shoot on the lagunas and rivers, and it is considered polite to ask permission before hunting on fenced ground. Above all don't try to bully the natives lest your life insurance people have to cash your policy.

Dr. M. C. Hoag, Nevada, Ia.

FEED THE BIRDS.

The cause of the persecuted birds appeals to me strongly, and with pleasure I have noticed an increase in the number of birds this winter. The year before last there were none about us; last year a few came to us for shelter and to be fed; this year fewer are being killed. During the winter storms, no doubt, the little birds we fed would otherwise have perished, as thousands did, throughout the country. The air would at times be full of birds coming to feed; the juncos, sparrows, bluejays, and an occasional purple finch, on the porch after bread crumbs, nuts or cracked corn. The nuthatches were also interested with the woodpeckers in the suet we had nailed to the trees. The little brown creepers were very independent, coming to the closely neighboring trees but not seeming to depend on us as the other birds did. I wish lovers of nature would awaken to the needs of the birds during such storm periods, when the seeds of the meadow grasses are icebound and the table of the birds is so sparingly spread. There are many tragedies in their little lives and some of them might be prevented by human pity and thoughtfulness. The cause of the poor little grebe, whose solitudes have been so remorselessly invaded, has greatly interested me; those brave, beautiful little creatures who give themselves, a cheap sacrifice, in trying to save their young. They have been killed by thousands through the barbarous desire of women to deck themselves in stolen feathers even at such a cost in anguish. The grebe, like the egret, must soon be annihilated if women persist in demanding their slaughter. Every true woman should bear the thought of them with her and should do all in her power toward forming the opinion of thoughtless women who stoop to wear these

beautiful innocent breasts. Women of good taste scorn all such base traffic.

Georgiana K. Holmes, Summit, N. J.

SCORES A GLOBE-TROTTING HOG.

Recently I came across a book entitled, "Sport and Travel, East and West," by F. C. Selous, published in 1900.

In it Mr. Selous describes a hunting trip he took in Wyoming in 1897, starting on the Eastern slope of the Big Horn mountains and traveling to a point just outside of the Yellowstone Park. The start was made September 1st, and their expedition lasted until the middle of November. During that time Mr. Selous acknowledges killing 2 antelope, one ewe mountain sheep, 8 bull elk, 8 buck deer and one doe. Three elk and one deer were killed in one day. He speaks of other members of the party killing game, but those I have mentioned he killed himself.

All he took of the elk was the heads. He says the trappers used the meat for bear bait. He sympathizes greatly with the settlers who kill game, if they do not waste it, and then talks about the way game is disappearing from the United States in spite of our game laws. That seems to worry him a great deal, and he regrets he was not here when elk, deer and buffalo were plentiful. The following year he returned for a shorter trip, during which he killed only 4 elk and 4 deer. He seemed greatly troubled that he did not get more. What he particularly wanted was fine heads, but he evidently killed the elk first and examined the head afterward.

It seems to me we have enough game hogs at home without importing any from Great Britain. Mr. Selous may be a great hunter, but I do not think he is much of a sportsman. From the way he writes he evidently would like to come back some time for more game. It would be a blessing if the game wardens of Wyoming could catch him out there, as his book is good evidence of his absolute disregard for the game laws of this country.

W. J. F., Chicago, Ill.

WEST VIRGINIA'S GAME.

Not for 15 years has game been more plentiful than at present in and about Romney, W. Va. Several reasons have been advanced for this. One theory is that owing to forest fires in Maryland and the Western part of this State deer have been driven in here in large numbers. Then we had a close season, or practically so, for 3 years, and deer have had an opportunity to breed unmolested. Another reason is that the citizens of Hampshire county do not allow the hounding of deer. Consequently at the opening of our season deer were plentiful, and over 40 were killed within 6 miles of this town.

Our game laws are good but are not enforced. We have a State game warden, but no deputies. Our law which requires non-residents to pay $25 for a shooting license is unwise. Instead of protecting game, it gives license to native game hogs and pot hunters to kill all the game they can and sell it. During 15 years I have met most of the sportsmen who come to this county to hunt, and all of them spend $10 for every dollar's worth of game they kill. Besides, to my mind, it is most unjust to demand money from a sportsman and then give him no place to hunt. The State has no hunting lands, and farms are generally posted.

We have good ruffed grouse shooting. Our quail shooting was not so good, as the past severe winter froze most of the birds. We have lots of rabbits. This year squirrels were scarce. Wild turkeys are plentiful.

Romney is on the South branch of the Potomac, and is famous for its black bass fishing. It is understood that an effort will be made to pass a license law for the fishing. If they would enforce existing laws we should need no other legislation on the game subject in this State.

J. B., Romney, W. Va.

PROTECT GREYS BY LAW.

January RECREATION contained, among other good things, an editorial with which I am in hearty sympathy, namely, "Save the Grey Squirrel." Your appeal for the squirrel is timely and what I have long hoped for. The squirrels, grey, red and chipmunk, are a harmless group. If I had the making of the laws I would protect all 3, and along with them the crow, owl and hawk; all thieves and tricksters, perhaps, but all useful to the farmer.

Against the grey squirrel the farmer has lodged no complaint, so from that source a bill for its protection would have no opposition. The strongest opposition would come from the man who has a day off and shoots everything in sight, and from the small boy. These are the fellows who shoot robins, meadow larks, blue jays, etc., as well as the birds and animals the law allows him. Ernest Seton's "Daddy Binks" is a good illustration. The squirrel tails and bird wings are used to decorate his room and to show his admiring friends, telling them how he killed 2 dozen squirrels, etc. The small boy with a gun would send up a wail, but I would cause him to wail more by making any boy under 18, who wished to use a gun, give bonds to the county game warden.

No real sportsman would offer any opposition to a law to protect the grey squir-

rel. Why not get a bill before the Legislature this session? If every reader of RECREATION in New York State would agitate this matter, and write to his assemblyman and senator, a law could be enacted this winter that would put our State to the front in the matter of protecting animals as well as protecting the public by medical laws. Your articles on the game hog are all right, only you do not hit him hard enough to suit me.

H. V. Shelley, Ridgebury, N. Y.

PUT HIM BEHIND BARS.

I think it my duty to write you about a game hog in Stratford, Conn., a notorious duck hunter named Charles Wicks. Last winter he sculled out on Long Island sound and shot 160 ducks in less than an hour with a 4 gauge gun. They were broadbill and black ducks. This man makes a business of duck shooting.

Clifford H. Platt, Milford, Conn.

I wrote Wicks regarding this matter. His answer follows:

Your letter at hand. In reply will say that I killed 132 ducks in about one hour. I could have killed 3 times as many, but when the man with me counted and said I had over 100 I said I had enough. There are lots of broadbill here at times.

Capt. Charles D. Wicks, Stratford, Conn.

It is strange indeed that a man of your apparently swinish disposition should be satisfied with so small a number of ducks as 132 in an hour. I am surprised you did not keep on as long as there was a duck in sight and load up your boat even if you had to make one or more trips to the shore to unload, and go back. It would have been like the general run of your breed to do this. As I have often said, it takes a gentleman to quit when he gets enough, but you evidently do not aim to be in that class. You are of the kind that believes in killing as long as there is anything in sight. I hope we shall soon have laws in all the States that will result in putting such men as you behind the bars for a long term for such acts of slaughter as you admit having committed in this case.—EDITOR.

THE GAME FIELDS OF IOWA.

Although Iowa is not regarded as a game field it contains much small game. For quail shooting, last season was the best for years, being even better than the previous season, which was remarkably good. The winter has been mild and the outlook is favorable for good shooting next year. The quail is not the easiest thing to hit, as all sportsmen know, and if one gets 5 or 6 birds he is doing well. An old hunter recently remarked that when all other game birds shall have been exterminated the quail will still remain. How true this is we will soon be able to tell if the game laws are not heeded better than they are now.

Prairie chicken shooting was not so good as was expected. The birds were badly scattered when the season opened, apparently having been shot at before.

Duck shooting began September 1, with the teal that breed in Iowa, and lasted until the 1st of December. Mallards were unusually plentiful, though they are not often abundant in Iowa.

The State still permits spring shooting, and State Warden Lincoln will try to have a law passed during the coming session of the Legislature prohibiting it.

The small fur-bearing wild animals are becoming plentiful and trappers make a fair living. Cottontail and jack rabbits give much sport during the winter, and were abundant last year.

Surely Iowa is a good hunting ground; all it needs is a better enforcement of the game laws.

Geo. J. Bicknell, Humboldt, Iowa.

AN OREGON HIDE HUNTER.

We have in our State a few low-down, contemptible deer hogs. One of these animals was arrested this summer with 1,500 deer skins in his possession. He was too lazy to work, but would slink around in spring and summer and kill does with fawns, simply for the pelts. He had followed the same vocation for years. When at last the hand of the law was laid on him he paid a fine of $100 and costs, whereas he should have been hanged.

I hope the law passed by our last Legislature will prevent further brutality by such beasts. Under this law one may not sell either the flesh or hide of deer at any time; neither can he sell grouse, pheasants or quails for 5 years. This will allow an increase sufficient to again give us an abundance of good sport.

In July I had some fine sport trout fishing. I caught in one hour all our party could use in a day. Never before have I found trout so plentiful; the water seemed alive with them. I did my fishing in Silver creek and Canyon creek, in Southeastern Oregon.

The open season for Mongolian pheasants began October 1. One does not see such wanton slaughter as in former years, owing to the fact that the birds can not be sold. The law prohibits the killing of more than 15 birds in one day by each hunter. Two friends and I returned from a hunt last week with a nice bag of birds. We killed

in 1½ days 34 birds. Pheasants are scarce owing to late, cold spring rains.

G. W. A., Portland, Ore.

EVADE THE QUESTION BUT NOT THE PEN.

Al Otness, Charles W. Seed, Ed. Flues and Ed. Young returned from Harney lake last night, where in 1½ day's shooting, they killed over 300 ducks and geese, bringing in with them fully 250. They claim to have run out of ammunition; otherwise the slaughter would have been greater. They also say the country is alive with grouse, prairie chickens and sage hens and a band of about 50 antelope was seen, but not near enough to invite a shot.—Sumpter (Ore.) Miner.

To my inquiry Seed and Flues replied as follows:

Your letters of recent date regarding the killing of 300 ducks were forwarded to me from Sumpter. Unlike the illustrious father of our country, I can not say "I did it with my little" gun; nor can I bring myself to believe that I ever killed such an awful number of ducks.

Chas. W. Seed, Denis, Ore.

Yours in regard to the killing of 300 ducks and geese in 1½ days: It is not the part of wisdom to believe all you see in the newspapers. However, I am willing to admit that, had we the inclination and ammunition, we could have killed 5 times as many ducks in the time stated.

Edwin Flues, Sumpter, Ore.

It will be noticed that both of these men evade the question. They do not state how many ducks and geese they did kill, and it is reasonable to assume, therefore, that they are guilty of the charge made against them by the Miner. Seeds, Flues and Young are, therefore, fully entitled to wallow in the hog pen.—EDITOR.

DEER INCREASING IN NEW YORK.

I refused 5 chances to shoot at immature deer, and killed no deer at all in 1901. Deer were more abundant when that season ended than when the season of 1900 began. There were a few hounds used in this region last year, but some of them did not get back home. A few hunters here who used to believe in hounding, gave it up in '97 and do not permit others near them to practice it, either. They get more venison by still-hunting, and there are 6-fold more deer than 5 years ago. Then a deer out in the fields was a rare thing. Now, in season, I can take you to an orchard not 100 rods from my dwelling where many deer come nightly for apples. It is the same everywhere in this region; deer have become numerous since the law of '97 took effect. I hope it will be re-enacted.

I protest against the widespread use of the term "pot hunter" as a synonym for "game hog." Originally it was applied to one who killed game for his own dinner pot, and took care to make every shot tell. He certainly was not a wholesale game exterminator, an all around market hunter, or a game hog. Those names are plain United States for the men we are opposing. I prefer to write myself a pot hunter of the old school. The game laws are for all the people alike, and it is to secure the greatest good to the greatest number that we obey and uphold them.

Rodney West, Minerva, N. Y.

WYOMING PEOPLE SHOULD WAKEN UP.

Do you, can you, realize what a hard proposition we have to face out here in our beloved Wyoming, the last stand of the big game of the West? There is more indifference shown in this matter here than anywhere else. The people do not seem to care. They find fault with you for roasting the game hogs, but appear to lose sight of the fact that you are doing lots of good. Even the majority of the guides in this neighborhood censure you for your roasts. I wish to God we could get them to realize that our big game is going fast, and that if more stringent measures are not taken to protect it, it will soon be a thing of the past. Perhaps a change will come before it is too late.

The antelope are just about gone in the Bighorn basin. When I first came here, in '89, they were numerous.

Elk, deer, bighorn and moose are still in goodly numbers, but how long will they last if our citizens do not take an interest and see that the game is properly protected? My advice, from the standpoint of a hunter and guide, is to restrict residents and non-resident sportsmen to the killing of one male animal of each kind of game in one season, and attach a heavy penalty to the killing of any females. That is the only hope for the big game of Wyoming.

Jas. L. McLaughlin, Valley, Wyo.

A NEW SPECIES OF BEAR.

Referring to the article, "An Adirondack Bear," by Dr. Bassler, in September RECREATION, I should like to know what kind of bear that was. I have seen many bears, but never one with a white belly. In 1858 I was living in Northern Wisconsin, and bears were abundant. There was an Irishman living about 3 miles from the settlement. One moonlight night he heard a disturbance in his hen house. He grabbed his old musket, woke Bridget, and sallied forth on a bear hunt. He stood by the door, while Bridget, by making a racket at the back of the building, drove the brute out. Pat rolled him over most beautifully. Pat and Bridget then proceeded to skin him, and nailed the hide on

the side of the house. The next morning Pat distributed bear meat about the settlement until every family was supplied. Two weeks later one of the neighbors happened to pass Pat's cabin, and seeing the skin nailed up asked Pat whose dog he had killed.

"Begorry," said Pat, "that is the bear."

It proved to be Jim Wilson's black dog, one of the worst renegades in the country. Everybody was glad the dog was dead, but did not seem overjoyed at having helped eat him. I think Dr. Bassler's bear was of the same species.

D. E. Packard, Belmont, Ia.

THE JUDGE WAS WRONG.

A fine of $700 and costs was the sentence imposed on Ira Arnold by Trial Justice Spencer in police court recently. Arnold lives on the outskirts of the village and had been snaring grouse. Game Warden Stanley, of Standish, heard of it and came here last week to investigate the matter. He placed Arnold under arrest and had him arraigned in police court for snaring 140 ruffed grouse in violation of law. The respondent pleaded guilty and said he did not understand when he snared the birds that he was committing a serious offence. Justice Spencer imposed a fine of $5 for every bird snared, $140 in all. Realizing that the respondent would be unable to pay the fine and that the county would be obliged to support him in jail almost 6 years while he would be working it out, the court suspended sentence during good behavior.—Dover (N. H.) Paper.

The judge was unduly solicitous as to the expense of boarding Arnold in the county jail. It need not cost more than 10 cents a day to feed such a shoat all he needs and all he deserves, and he should have been compelled to board out his sentence. He has stolen from the public a large quantity of game that has actual food value, and now that he is allowed to run at large he is likely to steal chickens or sheep or any other property he can get his hands on. It would no doubt have been money in the pockets of the tax payers in that county to have had Arnold locked up for 6 years.—EDITOR.

GAME NOTES.

I had a few weeks to spare last fall and thought I would try the ducks on the Mississippi. Found fall shooting there a thing of the past; there was no water and I could not induce a duck to even look down. Then I concluded to revisit my old hunting ground on the Illinois, where I used to shoot when the United States was a free country. Every place where a duck might possibly alight had been bought up or leased. When I came away I saw 470 mallards put on the train, tagged to Hough & Sherman, Chicago, from Powers Bros. All the birds had been killed in one day by 3 shooters on a "preserve." When they butchered, a few days previous, they got only 320 mallards. A dozen sportsmen left on the same train with me, and there were not 10 ducks in their combined bag. You see they had no money to invest in swamp land. I should like to see the marshes open to rich and poor alike. The next best thing would be a law limiting the kill to 25 a day on private as well as on public land.

O. Timer, Chicago, Ill.

One of the best signs of the times, and something for which I give you, personally, full credit, is the attitude which one of your contemporaries has taken the past year in regard to the game hogs. Some of his roasts are very like yours, and if yours were copyrighted he would be adjudged an infringer. This attitude of a sporting editor, who formerly never opened his head anent such things, simply proves that the leaven you have injected into the matter has produced a healthy sentiment on the subject, which will eventually become the only popular one.

Dr. E. B. Guile, Utica, N. Y.

Yes, the other editors are gradually getting in line. Their readers demand it, and the editors find they must join me in the crusade or lose their circulation. Even the A. D. G. H. will have to come to it yet or shut up shop. Wont it be gall and wormwood for Reynolds? Think of his roasting his old friends! Gee whiz.—COQUINA.

I fully agree with you that if something is not done quickly to stop the slaughter of big game it will become extinct. I have seen, since I came to Montana in 1895, a rapid decrease in game, especially of the deer family, and recognizing the necessity of immediate action, I was one of those who first agitated the formation of the State Fish and Game Protective Association.

Some of us had hoped to close all elk, antelope, and mountain sheep killing for some years, but we only succeeded in the cases of antelope and sheep. A few of us fought vigorously in behalf of the elk, but were doomed to disappointment at this time. The members of our association have decided that the L. A. S. is the only power that can secure th eenforcement of the game laws in Montana. If we can have a federal law, together with game preservation in forest reserves, much good will be accomplished.

Geo. B. Sproule, Helena, Mont.

I have been for some time a subscriber to RECREATION, and I frankly confess it has brought me to my senses as far as true

sportsmanship is concerned, and taught me to avoid becoming one of those bristlebacks you so frequently and justly roast. I have for the past 3 years spent a few days each season hunting deer in the Adirondacks, and am glad to say I never shot at anything but a buck. For the man who spends only a few days each season in search of big game, the temptation to shoot anything that comes in view is almost irresistible unless he has been taught that such an act is brutal as well as unsportsmanlike. Let us hope that every hunter may digest a few numbers of RECREATION before entering the woods; then there will always be good hunting and plenty of game.

W. J. Delap, Stamford, Conn.

You are doing more good than you perhaps realize by interesting the various Indian agents in game protection. Mr. W. H. Smead, of the Jocko Agency, has done a world of good in the past 2 years, and his Indians are fast becoming model sportsmen. The Nez Perces Indians still continue to slaughter elk in the Clearwater country during July and August. You would do well to write their agent. Last summer the Indians were hunting in the Clearwater district and killed and dried at one place some 30 elk. As they were drying the meat, 3 Idaho forest rangers, who are also game wardens, arrived, and though they stayed there 8 days, they did not even remind the Indians that they were violating the law.

A. E. Hammond, Darby, Mont.

I understand "Judge" Fisk is going to sue you for denouncing the hoggish work he and his gang of fellow swine did at Bemidji. That certainly will do him no good, whether he wins or loses the case, for the sportsmen know he is a genuine bristleback, and the louder he squeals the farther he can be heard. You have done him no wrong. He has disgraced himself among all true sportsmen, and the only way to come out of it, is for Judge Fisk to repent of his sin, ask the sportsmen of Bemidji to forgive him, and promise to be a good boy in future.

Long live RECREATION and its fearless editor. Continue to roast game and fish hogs until they all reform.

L. A. Arundson, L. A. S., No. 1956.
Moscow, Idaho.

Some counties in Washington realize the need of game protection and try to secure it. A few go to the length of enacting gun license laws. That, of course, shuts out the improvident pot hunter, but does little to restrain the wealthy game hog. Other counties show no concern in the matter, and in them the hog is rampant and patted on the back by the local press. Our greatest game hog, *Swinus maximus*, is, *vide* the Spokane Chronicle, one John Cochran. He is not satisfied with shooting a cartload of ducks in 2 days. He must needs go back the next week, with others of his kind, to butcher more. I have not heard how he made out, but I hope his gun burst and blew his bloody head off.

J. A. Cottle, Spokane, Wash.

Adolph Bonner, a cabinet maker of 824 Grand avenue, and Charles Koelle, a saloon keeper, of 119 Saltonstall avenue, were tried before Justice Grove J. Tuttle in the East Haven court, charged with violating the game laws. The men were accused of shooting a deer in the East Haven woods December 31st. The arrests were made by Deputy Sheriff Beach, of North Haven. Witnesses testified that they saw Donner and Koelle load the deer they had killed into a wagon and carry it away. The deer that was shot, it is believed, was one that was rescued from captivity by the game warden a year ago at Morris Cove and turned loose in the East Haven woods. Donner and Koelle were each fined $100 and costs.—Exchange.

Served them right. Beach is a corker. This is by no means the first record he has made in the cause of game protection and I trust it may not be the last.—EDITOR.

Our local police chief and assistants, also our judge, have promised me they will do all they can to help enforce our game and fish laws and the first case brought before the judge will get the full penalty, so as to make it a good object lesson. The principal of our public school is going to present one of the L. A. S. posters before the pupils in all the rooms, and thoroughly explain its meaning, especially regarding birds' nests and eggs and destroying our song birds.

Fred. W. Whittle, Northfield, Minn.

Game in this section is increasing rapidly since the passage of the law prohibiting the sale of ruffed grouse and woodcock. There were 3 men here who shot for the market, and without doubt they killed 5 times as much game as the other residents of the town. A law prohibiting its sale is the only law that really protects game, for if the market hunter can sell game he will kill it, in season or out. It is easy to kill game illegally, but quite another proposition to sell it illegally.

E. C. Hall, Ashfield, Mass.

While staying last summer in Coffeyville, Kansas, a city of 6,000 inhabitants, I was surprised to hear the whistling of quails. Going to the window I saw 3 of the birds on a building opposite and 15 or 20 more in the street and on the sidewalk. I was told there are 100 or more in the city, the descendants of a pair that came in 3 years ago. The city has taken them

under its official protection, and they are almost as tame as chickens.

C. H. Tucker, Parsons, Kan.

Our snipe shooting has just closed, today's bags being 5, 3 and 2. Plover and curlew, from the 10th to the 25th of May, are fine on our meadows.

Quails have bred in great numbers this year, but woodcock have been thoroughly cleaned out by pot hunters the past 3 years. Our county is a great breeding place for this bird, and has furnished excellent sport. We expect an abundance of summer ducks.

Henry E. Byrd, Temperanceville, Va.

Warren Montgomery brought down a large buck with fine antlers, weighing 330 pounds, Monday morning. Mr. Montgomery shot 2 in Canada and 2 in Maine, while on his hunting trip. Since his return home he has had exceedingly good luck this being the second one.—Exchange.

Six deer in one season, eh? That is equal to the record of the lowest and most disgraceful market hunter or skin hunter to be found anywhere. Montgomery certainly has a good big crop of bristles.—EDITOR.

Deer were plentiful here last fall and many large bucks were shot. There were also a few moose. Bear, wolves, lynx, foxes, grouse and rabbits are plentiful. We have good trout and pickerel fishing. Our law permits dogging deer, but the settlers curse the law, and have good reason for so doing. Even if the deer escape the hunters who watch at the lake shore, the cold bath after miles of running kills many deer.

John Burn, Rye, Ont., Can.

I understand there is a movement on foot in New York to stop grouse shooting for 3 years. I hunted many years in your State, and know the habits of the grouse and its enemies. If a bounty were put on foxes the birds would increase rapidly with no other protection than is afforded by existing laws. Foxes destroy more birds than pot hunters, snarers, hawks, skunks and all other vermin combined.

W. Hodgson, Calverton, Va.

Ohio has good game laws now, but I see by the papers that our city men want them changed. They do not like to ask land owners for permission to hunt. The law should remain as it is. It enables farmers to shut out men known to be pot hunters or hogs. At the same time it preserves game for decent sportsmen, who are seldom refused the privilege of hunting if they ask for it.

E. L. Cramer, Richmond, O.

Last year a friend induced me to subscribe for RECREATION. At first I did not like its stand in regard to game hogs, nor its opposition to spring shooting. Since reading your magazine a year I have come to the conclusion that it is wise and proper to prohibit spring shooting and to limit the number of birds to be taken in a single day or during the season.

C. A. Duncan, Timnath, Colo.

Will you kindly tell me through RECREATION a good preparation to use on leather hunting boots to keep the water out?

R. C. S., Elgin, Ill.

ANSWER.

Use Collan oil, advertised in RECREATION.

Quails are abundant here. During a 2 weeks' hunt last fall I killed 20. I could have killed that number each day, but since reading RECREATION I have learned not to kill everything within sight.

B. W. Farr, Erie, O.

A blue homing pigeon has come here marked on metal tag, 166|99 E. M. Doubtless some of RECREATION'S million readers want to know its whereabouts.

E. L., Tiffany, M. D., Wilson, N. Y.

What black duck shooting we have is controlled by a Toronto club. We still have a few fall ducks, but one is lucky to get 6 or 7 in a day.

S. E. Sangster, Port Perry, Ont.

Game is plentiful here, especially quails, and the prospect for next season is good.

C. W. Castle, Morris, Conn.

THE COONS.

W. L. GILLETTE.

They grew in beauty side by side;
They filled one stump with glee:
Now one is stuffed, the other fried;
'Tis sad as sad can be.

Too much of one poor farmer's corn
They ate, the night before;
A colored youth, with gun, next morn
Soon balanced up the score.

One poses now, lifelike and real,
O'er him each pilgrim jokes;
The other one just made a meal
For Rastus Johnson's folks.

Browne.—"Who is that clumsy woman dancing over there?"

Greene.—"I don't know, but certainly hers is not a horseless carriage, is it?"—Exchange.

ALMANAC FOR SALT WATER FISHERMEN.

The following will be found accurate and valuable for the vicinity of New York City:

Kingfish—Barb, Sea-Mink, Whiting. June to September. Haunts: The surf and deep channels of strong tide streams. Baits: Blood worms, shedder crabs and beach crustaceans. Time and tide: Flood, early morning.

Plaice—Fluke, Turbot, Flounder. May 15 to November 30. Haunts: The surf, mouth of tidal streams. Baits: Shedder crabs, killi-fish, sand laut. Time and tide: Ebb, daytime exclusively.

Spanish mackerel—Haunts: The open sea, July to September. Baits: Menhaden, trolling—metal and cedar squids.

Striped Bass—Rock Fish, Green Head. April to November. Haunts: The surf, bays, estuaries and tidal streams. Baits: Blood worms, shedder crabs, Calico crabs, small eels, menhaden. Time and tide. Night, half flood to flood, to half ebb.

The Drums, Red and Black. June to November. Haunts: The surf and mouths of large bays. Bait: Skinner crab. Time and tide: Day, flood.

Blackfish—Tautog, April to November. Haunts: Surf, vicinity of piling and old wrecks in bays. Baits: Sand worm, blood worm, shedder crabs, clams. Time and tide: Daytime flood.

Lafayette—Spot, Goody, Cape May Goody. August to October. Haunts: Channels of tidal streams. Baits: Shedder crabs, sand worms, clams. Time and Tide: Day and night flood.

Croker—July to October. Haunts: Deep channels of bays. Baits: Shedder crabs, mussels. Time and tide: Day flood.

Snapper—Young of Blue Fish. August to November. Haunts: Rivers and all tide ways. Baits: Spearing and menhaden; trolling pearl squid. Time and tide: Day, all tides.

Sheepshead—June to October Haunts: Surf and bays, vicinity of old wrecks. Baits: Clams, mussels, shedder crabs. Time and tide: Day, flood only.

New England Whiting—Winter Weak-fish, Frost-fish. November to May. Haunts: The surf. Baits: Sand laut, spearing. Time and tide: Night, flood.

Hake—Ling. October to June. Haunts: Open sea surf, large bays. Baits: Clams, mussels, fish. Time and tide: Day and night, flood.

Weak-fish—Squeteague, Squit. June to October. Haunts: Surf, all tideways. Baits: Shedder crabs, surf mullet, menhaden, ledge mussels, sand laut, shrimp. Time and tide: Day and night, flood preferred.

Blue Fish—Horse Hackerel. June to November 1st. Haunts: Surf, open sea and large bays. Baits: Menhaden, surf mullet and trolling squid. Time and tide: Daytime; not affected by tides.

FISHING GOOD IN YELLOWSTONE RIVER.

Park City, Montana.

Editor RECREATION:

In your department of fish and fishing in January RECREATION an article signed "Independent" would lead readers to believe that the Yellowstone river, between Columbus and Billings, is ruined as a trout stream by the dumping of coal slack. He says the river varies from a murky color to an inky blackness. Farther on he says the water at Columbus is so thick it is ruined as a trout stream. I do not wish to attempt any defense of the coal companies, but only that the truth of the matter should be known. As I have lived for the last 7 years on the Yellowstone about midway between Billings and Columbus and have always been much interested in the fishing, I have spent much time on the river. I have never at any time seen any sign of the washing of coal mentioned. During high water of early summer our river carries an immense volume of muddy water, as do all mountain streams; but during all moderate stages of water it is clear as crystal, and there are plenty of good fish left. The Yellowstone at Billings nas never been much of a stream for trout, running as it does for 25 miles West of Billings through banks of clay and taking much waste water from irrigation ditches. Water at that distance from the mountains usually is too warm for trout, although a few are caught as low down as Billings; while at Columbus and for 20 miles East of there the fishing is excellent. I think I will be sustained in this statement by any fair minded citizen of either Billings or Columbus.

I am better pleased with RECREATION each year. The L. A. S. members here are trying to protect what little game is left, and the laws are well kept; but we greatly need a law prohibiting spring shooting, as if that were stopped a great many ducks would nest here that are now killed or driven away.

There are still a few antelope on the ranges North of here, and if the present law is upheld they will increase. Wolves and coyotes are quite plentiful. A few beaver are still found along the river, while sharptail and sage grouse are fairly numerous.

B. F. Harris, L. A. S., 3826.

AT GOODLUCK LAKE.

About the middle of June, '94, I went for my second camping trip among the foothills of the Adirondack mountains. There were four of us: Tip, the guide, Bob, Sid and I.

We started from Bob's house about 9 p. m., as the roadway was bad and the horse could travel better in the cool of the night. We stopped for breakfast at a deserted house near Pine lake, but the mosquitoes and punkies were so thick that we stayed only long enough to feed the horse. Our camping ground was reached about noon. The place we selected was on the shores of Goodluck lake, at the headwaters of the Sacandaga river. After pitching our tent and building a stall for the horse, Tip and Sid took a boat and in a short time had fish enough for supper. Bob and I went with another boat to cut swale grass for

the horse. The next morning we built a fish-box in which to keep our fish alive.

The fishing was good, trout and pickerel falling easy prey to our tempting bait. We were careful not to make hogs of ourselves, however, and took only enough fish each day to supply our wants. Ducks, grouse and woodcock were abundant in the woods on all sides of the lake, but as it was the close season they were perfectly safe from our guns. The creeks around abounded in trout. Mosquitoes, punkies, black flies and deer flies were also numerous. We spent a pleasant week among the mountains, hunting, fishing, rowing and swimming.

A. B., Sacandaga, N. Y.

BLUE HERONS DESTROY TROUT.

I note W. L. Steward's article in February RECREATION in regard to the blue heron destroying young trout. I know, to my sorrow, that the ungainly bird is an expert fisher. A friend of mine near here owns one of the finest trout streams I ever saw. Being no angler himself, he has occasionally asked me to visit him and try the trout. The brook was so full of them that it was no trick at all to take a dozen fine fellows in an hour. One summer the fish seemed few, and we wondered why. We had noticed blue herons wading in the stream, but never dreamed they were the cause of our poor luck. One day my friend said:

"Doc, I know what's the matter with the trout. It's them darned cranes."

Enough said. Out came the 38 caliber Winchester, and every blue heron heard the hum of lead, and the bones of several lie along the stream. The living ones left those parts to return no more.

Now, after 2 years, as I steal up to the bank and look over, it is not uncommon to see a red streak dart from cover; and down under that clump of willows I hear again the splash of some fine fellow as he takes in a grasshopper that made a mistake and did not jump far enough. Personally I have no use for the blue heron. He is a genuine fish hog.

F. G. Legg, M.D., Coldwater, Mich.

TROUT ABUNDANT NEAR VANCOUVER.

I have taken RECREATION nearly 2 years. It is the best magazine of the kind published in America. I like the way you roast pork. It is too bad, that men who are supposed to have some common sense, show such a lack of it every chance they get to make a good bag of game or basket of fish.

Our trout season has just opened, and I hear of good baskets having been made. But good stream fishing does not begin till about May, as our streams are mostly mountain streams, and the snow melting in the spring makes the water high and dirty.

We have several streams within easy reach of Vancouver, the best of which are the Coquitlam and the Lillooet. I have not fished on the former, but persons who have say the fishing is excellent. This stream is about 20 miles from the city. The Lillooet is about 30 miles. I spent 3 or 4 days on this stream last summer and had some good catches. One afternoon I fished from about 2:30 p. m. to 5 and caught 14 fish, which filled my basket. They ranged from ¼ pound to 3½ pounds.

Being an amateur photographer, your photo competitions interest me much.

W. G. B., Vancouver, B. C.

TROUT HOGS ON THE POTLATCH.

Idaho has some of the best trout streams in the world, though people who have not visited the Bitter Root mountains can not realize this.

In August, 1901, 4 of us cast our lines in the Potlatch, and a happier, more congenial crowd never got together. The great trees permitted the welcome rays of the sun to reach the earth, thereby insuring us plenty of sport. The weather was delightful, the air laden with the odor of pines, the fishing all that heart could desire. No sooner had we entered the water than we saw trout, ranging from 6 inches to ¾ of a pound, darting in all directions. Small bunches of moss grew in the river, and behind these we made our casts. No sooner did the fly touch the water than it was snapped up. It is at such moments as these that we lose all consciousness of everything else.

In the one day we took enough trout to supply our tables a week, the total catch being 609 for the dav.

J. D. Jolly, Troy, Idaho.

Over 150 trout for each man. You should all be ashamed of yourselves.—EDITOR.

ACTIVE WORK IN WISCONSIN.

The game and fish wardens of Wisconsin are making this a mighty hard year for lawbreakers. Here is a synopsis of their work during the past few months:

Deputy George Briggs, of Ashland: 5 arrests and convictions for taking whitefish weighing less than 1¼ pounds each. Several cases unsettled. Deputy Peter Drafahl, of Afton: Seizure of fish and set lines at Lake Koshkonong. Deputy A. W. Gratz, of Madison: Seizure of fish. Deputy Fred Gerhardt, of Milwaukee: 3 seizures of fish and game. Deputy A. J. Klofonda, of Eau Claire: Arrest and conviction for shooting ruffed grouse. Deputy K. Knudson, of Winneconne: 2 seizures of fish and nets. Deputy Gustav Pfeiffer, of Sturgeon Bay: Arrest and conviction for shooting deer. Deputy Val Raeth, of Milwaukee: 5 seizures of fish, one being of brook trout. Deputy G. K. Redmond, of Neillsville: 2 arrests for shooting deer, one of the defendants being convicted and the case of the other continued. Deputy J. W. Stone, of Barron: One arrest for

shooting deer and having possession of a redcoat; case not settled. Deputy Stone and A. A. Lavalle, of Shell Lake: One arrest for shooting ruffed grouse and one for having possession of 6 saddles of venison; cases not settled. Deputies M. F. Carpenter, of Foud du Lac: Julius Waite, of Appleton, and K. Knudson, of Winneconne: Arrest of 10 fishermen on Lake Winnebago and seizure of 24 miles of set lines, 3,400 feet of sturgeon nets, 2,800 feet of gill nets, 12 spears and 1,000 pounds of fish; case not settled.

FOR ILLEGAL FISHING.

Samuel P. Monroe, of Old Lyme, and Albert T. Crittenden, of Westbrook, for illegal fishing on a Saturday evening in the Connecticut river, were brought before the superior court and pleaded guilty. They were each fined $100 and costs, the penalty prescribed for the offense.

Monroe is a justice of the peace in the town of Old Lyme, and was formerly a game warden. He and Crittenden were caught by Constable Bugbee, of East Hamden, violating the law forbidding the taking of shad from sundown on Saturday until sundown on Sunday. They were tried in the justice court, found guilty and took appeals to the superior court. They were under bonds of $150 each until the cases were called in the superior court. Monroe submitted to the court a petition that he was an honest and industrious man. The petition was signed by a number of residents of Old Lyme. He has served several times on the jury in the supreme court for New London county.—Norwich, Conn., Paper.

Justice, like death, loves a shining mark, and surely ex-Justice and ex-Game Warden Monroe is a good target for the blind goddess. I am glad she whacked him good and hard, as well as his fellow law breaker. —EDITOR.

NIBBLES.

The great interest with which I have read your gun and ammunition department now turns to fishing and tackle. June opens our season for trout and I should like to tell brother anglers of the flies I have used for 2 years. Several times this past season I picked up exceptionally large trout from a stream which had been whipped to death all day. Anglers I met on the stream, who were out of certain flies and borrowed some of the patterns I had, were much more successful. These flies were tied by Howarth, of Florrisant, Colo., and I never have seen similar patterns from any other maker. I believe anyone who will try a few samples of these flies will thank your magazine for stating where they can be obtained.

Colorado's 8-inch trout law is stocking the streams with good, vigorous trout, of a size it is a pleasure to catch.

R. J. Rowen, Leadville, Colo.

The Cleveland Plain Dealer reproduces a photograph of a notorious fish hog who lives in Conneaut, and whose other name is E. F. Harrington. The picture shows this fish butcher sitting alongside 7 large muskalonge, which it is said he speared through the ice on Chatauqua lake. The Plain Dealer lauds this brute as a hero. If the reporter had known the contempt which all decent anglers entertain for such men, he would instead have branded him as a disreputable slaughterer. Let us hope that when Harrington reads this he may change his mind as to whether he is a great fisherman or simply a bristleback.

A discouraged fisherman is Richard Trombley, who is locked up in the county jail on the charge of violating the fish laws. Richard has made his living by the fish taken from Lake St. Clair; but now the hand of the law has taken Richard by the collar. He was arraigned before Justice Sellers February 25th. Deputy Game Warden Fred Fisher saw a wagon driven by Trombley stop in the rear of Levy's store. Fred Fisher knew in what business Trombley had been engaged for some time, and he uncovered the wagon, with startling results. In the wagon were 150 pounds of black bass, known out of season as "No. 2 sturgeon." They had been taken by a spear, and Richard was gathered in. In the police court Trombley protested that he had bought the fish. The court set his bail at $300.—Exchange.

Served him right.—EDITOR.

There are violators of the fish and game laws here, some of them prominent men. Many nets are used in this country and it is no uncommon thing for people to go spearing at night on our streams; also on the lakes. Several parties fish the year around for the profit there is in it. One of them tells he makes $1.50 to $2 a day. He gets bass, blue gills and perch. There should be a law to prohibit the sale of fish taken from our small inland lakes.

C. A. Stone, Hillsdale, Mich.

My grandfather owns a place at Bay View, on Little Traverse bay, Mich. One day my brother, Charles, went fishing at the dock. He baited his hook and sat down to fish near the end of the dock where the water was about 19 feet deep. Soon he got a hard bite. He had a good fight and had to play the fish a long time. When he landed it he found it was a bass that weighed 2¼ pounds. Charles is 7 years old.

Horace Benton, Cleveland, Ohio.

This is a good place to hunt foxes. A friend caught 19 last winter; I caught 2 and one black bear. I live on the banks of Pine river, the best trout stream in Michigan. Of course they are rainbows, but some call them brook trout. One was taken that weighed 8½ pounds.

Chas. Garlets, Thorp, Mich.

Will some reader of RECREATION kindly tell me where I can find reasonably good black bass and pickerel fishing within 50 miles of Philadedphia, either in Pennsylvania or New Jersey?

George Parnell, Philadelphia, Pa.

GUNS AND AMMUNITION.

Anybody can keep on shooting all day, but it takes a gentleman to quit when he gets enough.

SEMI-TELESCOPIC SIGHTS.

For a year or 2 past, there has been a remarkable revival of interest in optical aids to the rifleman, for more surely directing rifle shots. The market is now well supplied with rifle telescopes; some good, some indifferent. They are not unreasonably expensive; yet to a large number of users of the rifle, the cost is so much of a bar that they deny themselves the pleasure and comfort a good 'scope can undoubtedly afford. There is, beside the reguler telescope with metallic tubes, a contrivance composed of 2 spherical lenses, 1 for the eyepiece, and 1 for the objective, using no tube or diaphragm. This is denominated the semi-telescopic, or lens sight, and will, when properly constructed, furnish a cheap and useful substitute for a telescope. In various forms they have been in use many years, and there is some question as to who first devised them. In their simplest form, of which we shall here treat, they can be practicably made by any one possessing average mechanical skill.

The lenses can be obtained of any optician or jeweller, and should be cut by him and ground to proper diameter from an ordinary first quality, centered spectacle lens, care being taken that the center of the original lens be also the center of the new lens.

The front lens, the objective, is a plus or convex glass, and is preferably mounted in some form of a hood or globe sight. In the ordinary sight of this kind, the lens may be easily fixed so that it can, at will, be inserted or removed. The cell to contain the lens may be made of brass or hard rubber tubing, or the lens may accurately fit the inside of the hood sight, and be held in by 2 incomplete rings of spring brass, one on each face of the glass. The pinhead or aperture of the front sight remains unaltered, and is used the same as though no lens were employed. It is necessary, if good work is to be done, to have the objective well within the hood, so that the side rays of light may be cut off entirely. It might be mounted on a combination front sight, like the Beach or Lyman, if the lens were protected by a supplementary tube, with the same end in view: cutting out all side light.

The rear lens, the eyepiece, is a minus or concave glass, and should be mounted in the eyecup or aperture of the peep sight, taking care that the optical center of the lens and the center of the aperture in the disc coincide. This lens may be temporarily mounted in sealing wax, used to make it adhere to the rear side of the cup. An excellent method is to have 2 interchangeable cup discs, one with the eyepiece permanently attached, and the other one plain.

The strength of the lenses depends upon 2 factors; the distance between sights and the power required of the completed sight. All users of this device agree that the best results are obtained with the lower powers, nothing higher than 4 powers being permissible, and the best being 2 powers. This latter reduces the apparent distance to the target just ½, with all the consequent advantage.

The principal reasons for keeping the power low are 2. First, the size of field is, owing to construction, necessarily limited, and decreases rapidly as power is increased. Second, the principal use of a rifle thus equipped, being for off-hand work, the power must be low, or the magnification of the errors in holding would be so great that it would be almost impossible to use it in strictly off-hand work. Few men can use a power higher than 4 or 5 diameters in off-hand work, even if equipped with a telescope of high grade, good illumination, and large field.

In using the semi-telescopic sight in target shooting, many who have impaired vision find it the one thing needful to perfect their scores, and to anyone, the regulation bull's-eye at 200 yards is a very different shooting proposition than when viewed with naked, unaided eye. It apparently has increased in size to twice its former dimensions, assuming that your lens sights are 2 power, and you may still use your favorite pinhead or aperture front sights, unimpeded as before.

As I have said, the strength of the lenses depends on 2 factors; the distance between sights, and the power required. Now as to the formula to obtain the proper foci of the lenses. Let d. represent the distance between sights, and p. be the power required. Then d. divided by (p. minus 1) expressed thus $\frac{d}{p-1}$, will be the focal strength of the eyepiece or rear lens, which, of course, is a concave glass. The front lens, the objective, will be a convex glass, equal in power to the focal strength of the eyepiece, multiplied by the power required.

For example, if the distance between sights is 31½ inches, and we desire to construct a 2-power sight, then $\frac{31.5}{2-1} = 31.5$ (concave), this being the focal strength of the eyepiece. 31.5 multiplied by 2, the power required, = 63. (convex), which is the focal strength of the objective. These focal strengths are expressed in the nearly obsolete, so-called inch system. For convenience

these numbers may be transposed into, as nearly as possible, the corresponding strength measured in dioptres. As an aid to ready transposition, we append the following table:

No. of lens in dioptres.	Focal distance in inches.	Nearest corresponding lens in old inch system.
0.12	314.96	
0.25	157.48	144.
0.37	104.99	
0.50	78.74	72.
0.62	62.99	60.
0.75	52.5	48.
0.87	44.99	42.
1.	39.97	36.
1.12	34.99	
1.25	31.5	30.
1.50	26.22	24.
1.75	22.48	
2.	19.69	20.
2.25	17.48	18.
2.50	15.75	16.
2.75	14.31	15 or 14.
3.	13.12	13.
3.25	12.11	12.
3.50	11.25	11.
3.75	10.49	10.
4.	9.84	9.
4.25	9.26	
4.50	8.74	8.
4.75	8.29	
5.	7.87	
5.50	7.16	7.

In transposing the inch measures into dioptres, or the focal distance in inches into either the inch system or the dioptric system, choose that lens which most nearly approximates it, preferably going a little higher, if necessary, rather than lower.

You have now at command the means of making for yourself a serviceable, readily removable lens sight, and can adapt its power to your requirements. At the targets, if you are barred from rest shooting on account of your lens sights, no need for an argument; simply remove the front glass from the hood, and the rear one from the disc to which it is affixed, and without any change in adjustment, your sights are ready for use on even terms with all competitors.

Now for a few "don'ts."

Don't get too high power.

Don't fail to have the lenses centered.

Don't forget that a lens sight won't help you hold your gun well.

Don't expect a well made sight to make a poor gun or imperfect ammunition perform wonders.

Don't forget that the errors in holding are magnified in direct proportion to the power of your sights.

E. B. Guile, M. D., Utica, N. Y.

WHAT THEY THINK OF MARLIN.

I received a little pamphlet entitled the "Original Game Hog," which, no doubt, you have seen. As I do not know to whom I am indebted for this exceedingly valuable contribution to contemporary literature, I can not express to him personally my opinion of it. Great care was evidently taken to suppress all names. Even the printer, the engraver and the artist omitted theirs; while the author is so evidently ashamed of his that he uses a *nom de plume*. I do not blame the printer nor the artist.

As to the alleged "crimes," the only law that governed a sportsman 20 years ago was that game should be either on wing or afoot. Gentlemen who were considered good sportsmen were in the habit of practicing on nighthawks and swallows, or in fact anything that had feathers, and if a person suggested that these creatures did no harm, he was promptly laughed down.

As to the gars and alligators, you probably had and would have to-day the thanks of every fisherman in the vicinity, whether hook and line or net.

D.'s suggestion that you withdraw your book, "Hunting in the Great West," would be equally applicable to the works of Frank Forrester, which, I believe, the A. D. G. H. still offers for sale.

If D. really wants to get down behind someone, why does he not get after some of his fellow subscribers and contributors to the A. D. G. H. about something more recent? Within 3 years ducks and geese have been killed both at the Swan Island Club and the Currituck Club, carried to the club houses, hung on poles, and allowed to rot. These were not fish ducks, but teal, widgeon, sprigs and black ducks, together with Canada geese and whistling swans. The proprietors of Monkey Island Club, Messrs. C. H. Jones and Albert Stone, of Boston, Mass., have, at least, the grace to sell their fowl; but some members of other clubs prefer to let them rot. Whether they learn this trick from the A. D. G. H., or from D. personally I do not know. They all subscribe to one and read the other. To conclude, "A house divided against itself falls," and if D. has game protection really at heart he should be ashamed of his attitude. You are doing a great work, and all advocates of protection should throw aside the past, work unitedly in the present, for the benefit of the future.

A. S. Doane, Waterlily, N. C.

Derby Line, Vt.

Editor RECREATION:

Enclosed is copy of a letter I am sending Marlin. E .G. Moulton.

Derby Line, Vt.

The Marlin Fire Arms Co.,
New Haven, Conn.

Dear Sirs: I return your document entitled "The Musings of a Mossback." Probably it is of much more value to you than to me, as I am an admirer of G. O. Shields, his methods, his motives, and his RECREATION.

In sending such an article enclosed with your catalogue you have, as an old proverb puts it, "Killed 2 birds with one stone," namely The Marlin Fire Arms Co. and the periodical that published your article.

E. G. Moulton.

RELOADING FOR HIGH POWER RIFLES.

Dr. A. W. Smith in his article in November RECREATION is a little severe in his denunciation of high power rifles and ammunition. Because one company turns out inferior loads for 25 and 30 caliber rifles, is no reason for condemning that class of weapons.

The Doctor's mistake was in using shells loaded with Laflin & Rand smokeless powder and expecting a velocity of 2,000 feet a second. That velocity can not be obtained with the powder named, on account of the extremely high breech pressure which it produces. In the 25-35 Winchester, 20 grains of L. & R. lightning smokeless, with standard bullet, is the maximum charge, which gives a velocity far below 2,000 feet. The Doctor should not use 30 or 32 grains of L. & R. smokeless in a 30-30 if he values the rifle. The pressure produced would be far above what the gun is intended to withstand. Don't put too much confidence in old instructions for loading L. & R. smokeless powders Write to the manufacturers for their revised directions.

DuPont 30 caliber smokeless with standard bullet gives a velocity of 2,000 feet without excessive breech pressure, and with good accuracy. I am informed the Winchester people load that powder in all shells for high pressure rifles, I have found Winchester loaded 25-35 cartridges all that could be desired. They gave high velocity with excellent accuracy.

For full charges giving a velocity of 2,000 feet, use DuPont 30 caliber powder. For medium loads use L. & R. sporting rifle smokeless, L. & R. lightning smokeless or DuPont smokeless No. 1 or 2, according to the shell and the rifle in which it is to be used. For miniature loads use L. & R. sporting rifle smokeless.

The goods produced by the Ideal Mfg. Co. are the best in the world. Their 110 grain bullet, No. 25730, is not too long for an 11 inch twist. If it keyholes either the rifle is at fault or the bullet is not rightly tempered or lubricated, or too much powder is used. A paper patched 133 grain bullet No. 25731, loaded in a 25-35 shell, with 7 or 8 grains of L. & R. sporting rifle smokeless, gives fine results. It is accurate and shows no sign of keyholing even at long range. It is a splendid medium load. With 10 grains of the same powder it is not accurate and will keyhole at times. With 12 grains of the same powder this bullet is more apt to strike sidewise and 2 feet below or to one side at 100 yards, than it is to go point on and hit the target. I mention the above charges and the results to show that the reason a bullet keyholes is not always because it is too long. I have experimented with various loads for the 25-35 and have obtained fine results, in fact much better than I at first thought possible. For miniature and medium loads I now use paper patched bullets and find them more satisfactory in every way, both at the target and in the woods.

F. C. Moulton, Wallstreet, Col.

HOW I INVENTED THE HAMMERLESS.

My first gun was an old army musket, long, strong and with a kick like a kangaroo's. As I was but 13 and small for my age, the balky old thing used to swat me until my head ached and my trigger finger looked like an over-ripe banana: but when the pain ceased and the swelling subsided I was again willing to spend my last cent for powder and shot and give that vindictive relic another whack at my collar bone. While I was thus industriously inviting disaster a neighbor's boy fell in love with my weapon, convinced from watching its performances that it was a remarkably hard shooter. He offered to trade for it a little single barrel 16 bore and I closed the deal. The little gun was just my size and I was rapidly becoming a wing shot when I unfortunately broke the hammer. I was in despair until I thought of holding the gun in my left hand and exploding the cap with an old harrow tooth. Thus, though unprincipled persons have robbed me of the well deserved emoluments, I am really the inventor of the hammerless shot gun.

One day we had unexpected company to dinner, and mother said,

"Son, call the dog and catch a chicken right quick."

"Lemme shoot it, Ma," I begged.

"All right, son," she replied, "shoot it if you like, but get it here suddenly."

I got my weapon and its accessory hardware, and trudged off in search of potpie filling. I went through the locust grove to a tall thick hedge in the shade of which the chickens loved to scratch and

dust themselves. The hedge was thick and the ragweeds tall, and for some time I could not get a shot. At last I caught a glimpse of a pullet I thought would do. Up went the gun, down came the harrow tooth, and while I picked bits of the cap out of my face I could hear the flop-flop-flopping of a dying chicken. I could not see where she had fallen, but running along the hedge to a hog hole I crawled through after my victim. Did I get her? Well, I did; and a big blue hen and ma's pet Leghorn rooster, to boot. I carried as much poultry home as I thought ma wanted; the rest I buried. My appetite for dinner that day was not over sharp.

One evening about a week later mother said, "See here, my boy, have you seen anything of my pet white rooster?"

"No, ma," I answered, "I haint seen him since last week."

Then I slid, unostentatiously, out of the back door.

C. L. Hart, Humeston, Ia.

WANTS TO RETURN TO THE MUZZLE LOADER.

North Park is in Northern Colorado, between Medicine Bow range, and the continental divide, and is about 45 miles long by 30 wide. There are a few bear and elk in the mountains, and deer are quite plentiful in the hills; but the deep snows in early spring drive the deer to the bald ridges of the Park. Then the festive game hog is in his glory, and his pump gun is heard daily within 2 miles of my cabin on Spring creek. One fired 40 shots into a band of deer and got one. Another day 2 others fired about 20 shots and got 2 deer. So it goes on every day. You ask, "Why not invoke the law?" Because the game laws are unconstitutional; therefore they are not enforced against the rich and the game wardens of Colorado do not arrest any but the poor. In consequence game will soon be gone. I am a reader of RECREATION, but I do not believe in discriminating between ferrets, bird dogs, deer dogs, and pump guns. By pump guns I mean any magazine gun, rifle or shot. You will not advertise ferrets and certain kinds of fishing tackle, but you advertise dogs and pump guns. Which is most destructive to game, a poor, miserable man with a ferret or the man with a dog and a pump gun? I am a hunter. I detest the name sportsman; it is only a genteel term for a game hog. Any man who will buy a pump gun is a game hog; if he was not, a single shot rifle would do. I have been many years in the mountains and have seen that 99 men out of 100 will not stop shooting until the magazine is empty. You may pass all the game laws you wish, you will never protect game with the pump gun in use. Pass a law that all men going into the woods must carry only a single barrel muzzle loading rifle, and no dog; a man going to hunt birds must carry only a single barrel muzzle loading shot gun, no dog; then game would increase and the woods would soon be cheered by the song of birds and the gambol of wild animals. Men would then become hunters and not sportsmen and butchers; and the little dude with his duck suit and smokeless gun would be no more seen in the land.

John A. Steele, Walden, Colo.

NOTHING LIKE THE SAVAGE.

Replying to A. A. Stott, of Louisville, Ky.: I have owned and used the following high power rifles: Blake, 40-40; Blake, 30-40 army; Mannlicher, 315; Winchester, 30-30 and 30-40, '95 model; and Savage, 303. Have also had the pleasure of handling the Mauser and the Krag-Jorgensen.

I have experimented with the above guns to convince myself as to the best all around sporting rifle. Last fall I purchased a $30 grade Savage to give it a trial on game. It gave such excellent satisfaction, that I sold it to a friend, who was struck with the good qualities of the arm, and I ordered for myself a much higher grade Savage. I have just received it and it is the neatest and best all around gun I can find. I have killed deer with all the above named guns; they are all good, but the Savage is my choice of the lot. The Mannlicher has the greatest range and penetration, but for convenience and economy the Savage takes the lead. Savage ammunition is the best on the market at the lowest price. I consider the Winchester 30-40, '95 model, next to the Savage, and advise all shooters against purchasing bolt action guns for sporting purposes. My advice would be: get a Savage made to fit you, with pistol grip checkered, matted, half-octagon barrel, shot gun butt stock, rubber butt plate and special sights.

I am greatly pleased with the good work of RECREATION and the L. A. S., but I think some of the crack shots who contribute articles on shooting have wheels in their heads. As Mr. Mynik says in his letter to the Peters Cartridge Co., some of these 600 yard shots are absurd. Let some of these good marksmen measure off 600 or 800 yards and then put up a deer and look through the sights at it; they will find it like shooting at a fly at 25 steps. I never calculate on shooting at deer over 300 yards. It is better never to shoot unless you are sure of hitting. If this were practiced more there would not be so many wounded deer to escape and die after being lost.

L. R. Baily, Lead, So. Dak.

STILL PRODDING PETERS.

Grand Island, Neb.

Peters Cartridge Co.,
Cincinnati, Ohio:

Dear Sirs:—I think you do Mr. Shields a great injustice in regard to your ad. RECREATION reaches a class of sportsmen who have used your goods many years. I have shot many thousands of your shells, but I shall discontinue the use of them. The L. A. S. is an organization that should stick together like brothers. When anyone undertakes to down Shields he should have the whole 5,000 or more to jump on. The Marlin Arms Company are sorry they quit Shields, as all members of the League in this locality, and I think everywhere, have quit using Marlin guns. One can hardly give a Marlin away in this country. We are an organization of good fellows, believe in the right thing, and stick up for one another. All I can do to stop the use of your goods in this State I shall do. May the Peters shells lie dusty on the shelves as long as the company bucks RECREATION. Sincerely yours,

E. C. Statler.

Caldwell, Idaho.

Peters Cartridge Co.,
Cincinnati, Ohio:

Dear Sirs:—I think your house unjust in discontinuing your advertisement in RECREATION. I have used your cartridges and ammunition for years, and have always found them satisfactory. If RECREATION did not publish the faults of guns, ammunition and sporting goods, as well as their good qualities, no true sportsman would want to read it or support it. As a member of the L. A. S., I do not wish to patronize any manufacturer who does not advertise his goods in RECREATION.

Yours respectfully, C. S. Davis.

BEST MEDIUM-PRICED SHOT GUN.

A. C. Burg, Livingston, Mont., asks which is the best medium priced shot gun. I had the Remington people make me what has proved an ideal quail gun for this country. It is their grade A hammerless, sold by most retailers at $35. The barrels are 26 inches; right cylinder, left modified. It is a handsome weapon and good enough for anyone. I targeted it with buckshot over smokeless powder, at 60 steps. It made equally as good a pattern as did a 34 inch barrel that was shot against it. Some dealers say smokeless powder will not shoot buck shot properly, but my experience tells me differently. Should like to hear from others on the subject.

P. H. Willson, Swanton, Va.

I want to tell Mr. Burg that the best medium priced shot gun I have used is the Baker. Am now using a Batavia Leader made by the Baker Co. It is a hammerless with 30-inch barrels, full choked. For trap and duck shooting it can not be beaten. My next gun will be a 7 pound, 28 inch, full choke Baker, for upland shooting. The safety on these guns makes them absolutely safe, which is more than can be said of other makes.

J. B. Hewey, Elkhart, Ind.

A. G. Burg, who wants a medium priced gun, can not do better than to buy a Baker. I have used one a long time and would not part with it. I think the Baker the only safe hammerless; the automatic block safety locking it absolutely until pushed back.

Geo. S. Lang, Rondout, N. Y.

THE REMINGTON LEE.

I rejoice to find the Remington-Lee coming to the front so magnificently. It has long been my favorite rifle in theory, though, in fact, I've never yet seen it. The picture in the Remington catalogue is as near to the weapon as I have ever approached, but that has appealed to what I like to call my good sense. The simplicity of the action is wonderful, and is a strong argument in its favor.

From RECREATION I learn that Frank Hyde, at Sea Girt, carried off honors and money with a Remington-Lee against all comers.

I remember that some writer a few months ago criticised this gun on the ground that while its range was wonderful, its accuracy above reproach and its trajectory admirably low, it yet lacked shocking power and penetration. It seems to me that the force which achieves great range must insure great penetration also. Perhaps I am a poor witness, for I swear by Remington. I have never known a poor weapon to come from the Remington shops. I have always thought the firm so old fashioned as to be honest. Perhaps it is only because they do not know how to put up a poor arm. In either case the brethren get good goods for their money. Whatever bears the Remington stamp is all wool and a yard wide.

W. H. Nelson, Washington, D. C.

SMALL SHOT.

Though I have owned a 30-30 rifle 3 years I can give Dr. A. W. Smith no information as to reloading 30-30 shells, as I invariably use Winchester soft nose ammunition. Have never had a jacket strip or a bullet keyhole that I know of. At target work, of which I do considerable, using an ivory front sight and Lyman's combination rear sight, I can hit an object a foot square nearly every time at 300 or

400 yards. If the doctor will procure some loaded Winchester shells and weigh the powder therein he will find fully 30 grains to the load, with the bullet in proper proportion. If, with this ammunition, results are unsatisfactory, I should be inclined to blame the gun. I have used this same load in other rifles than my Winchester with equal success.

Dr. Fred Sauerbrie, Clarksville, N. Y.

In December RECREATION, A. F. Wallace, Milwaukee, Wis., asks how to take lead out of a rifle barrel. It can be removed by plugging one end of the barrel and pouring in a little vinegar. Allow it to remain a few minutes, then wipe dry and the barrel will be as bright as new. Care should be taken to dry the barrel perfectly, or the vinegar may cause it to rust. If A. G. Burg wants a good gun he will make no mistake in buying a Lefever, G or H grade. They are as hard and close shooting weapons as any, besides being extremely simple in construction. In choosing a gun the main thing is to select one with the proper length of stock and correct drop. Then have the barrels bored for the kind of shooting you expect to do. W. S. S., Ganister, Pa.

In reply to D. F. E's. query about Mauser rifles, I can tell him that 2 men here ordered Mauser's from a firm that advertised captured rifles cut down to a sporting model. They look pretty well and shoot hard. The only objectionable feature is the rear sight. It is good of its kind, but so different from the buckhorn that we Westerners will have to get used to it little by little.

Do any RECREATION readers know anything about the Mauser pistol? If anyone has one and would like to trade it for skins, undressed, but well cleaned, such as bear, fox, bobcat, or coyote, I should like to hear from him. Or if anyone yearns for antique pottery or arrow heads I should be pleased to correspond.

C. M. Grover, Frisco, N. Mex.

December 27th, 1900, a number of law-abiding citizens, seeing the necessity of protecting game and fish in Fresno county, called a meeting at Fowler, and organized the Fowler gun club, having in view the pleasure and practice of target shooting, as well as the protection of game and fish. The by-laws of the club provide for regular practice shoots every Saturday and Sunday afternoon; also that any members in good standing may hold practice shoots any day, as some members would not shoot on Sunday while others could not shoot on any other day.

Samuel Burnett, Fowler, Cal.

In reply to L. M. Thompson, South Haven, Mich., would say I have made wire cartridges by hand and used them in my old muzzle loader with great success. There used to be a wire cartridge of English make on the market when muzzle loaders were principally used. I doubt, however, whether any dealer, except perchance some of the larger city establishments, handles them now. If Mr. Thompson chooses to communicate with me I can probably furnish him with a few made by hand and suitable for his gun.

Forrest Jones, Glady P. O., W. Va.

I should like to tell J. S. Miller, Jr., that he can not find a better gun for all around shooting than the $80 grade, 16 gauge, Parker. With 28-inch full choked barrels it will kill as far and as surely as any 12. I have used 10, 12, 16 and 20 bores, and at present am trying a 28 gauge, $100 grade Parker. I have not yet given the latter a fair trial. In medium priced guns the $50 Parker and the Ideal Lefever are best. Neither need be over 16 gauge.

Blue Wing, Saratoga Springs, N. Y.

I have used U. M. C. factory loaded ammunition several years, at the trap and in the field, and think it is superior to the W. R. A. make; also to the U. S. and Peters. The Peters shells are condemned for me as they miss fire too often and I know it not to be the fault of the gun, for I use a Baker hammerless, Paragon grade, which is a good shooting gun. The load I like best for the trap is No. 10 smokeless shell and DuPont powder.

V. F. H., St. Edward, Neb.

What Mr. Parshall considers "a fault of the Savage rifle" was more likely the fault of the shooter. Either shot he describes would, if placed where he thinks they were, have been fatal. I know by experience that a Savage will send a bullet clear through a moose, no matter where hit. It is the best sporting rifle made

F. W. Foreshew, Shequiandah, Ont.

Why have the Stevens people taken their ad from RECREATION? I am sure they make a mistake in doing so. I wish the Winchester Co. would build a 26 inch barrel, full magazine slide action rifle to use the 25 Stevens cartridge. It would be a good gun for all small game and perhaps, at a pinch, for deer.

Red Cloud, Brooklyn, N. Y.

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NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

MOUNTAIN SHEEP LORE FROM ALASKA.

Dawson, Y. Ter.

Editor RECREATION:

In your valuable RECREATION, of March, 1901, I read an article by Mr. Wm. T. Hornaday on mountain sheep. No doubt Mr. Hornaday studied the subject carefully, but there is a doubt whether or not some of the authorities are correct. Regarding *Ovis montana* and the California sheep, *Ovis nelsoni*, I believe Mr. Hornaday is correct; also regarding the white sheep of Alaska and Canada, *Ovis dalli*. The question is, are *Ovis stonei* and *Ovis fannini* new species?

Would Mr. Hornaday and naturalists in general call a white beaver, a marten with white feet or tail, a black, blue, or fawn colored wolf, a straw colored quail, a white blackbird, or a cow moose with antlers, new species? If these freaks are new species, then by all means call Stone's sheep, *Ovis stonei* and Brown's *Ovis fannini*. If not, call them what they are, *Ovis dalli*.

I have observed that some specimens of *Ovis dalli* are slightly colored, sometimes like the description of *Ovis stonei*, then again like the description of *Ovis fannini*. Besides, there are other variations, too numerous to describe minutely. Some of these variations have the dark markings only on the legs from the knees and hocks down; others have only dark necks; others only dark rumps. Some have white hoofs, some black. If *Ovis stonei* and *Ovis fannini* are new species, the naturalists would better send other men here to name white beavers, white footed martens, various colored wolves, also the different "new species" of sheep. Then we could have *Ovis tomi*, *Ovis dicki* and *Ovis harryi*.

I have seen pure white sheep with offspring colored and *vice versa*. I will not ask anyone to believe my statement until it is proven, therefore I should like to see someone sent in here who would write of things as they are. Naturalists as well as the public at large could learn a little.

Have you or any of your readers ever seen or heard of a cow moose with antlers? In July, 1900, I shot a cow with antlers, mistaking her for a bull. On going up to her I started her calf which had just finished his lunch of milk. The antlers, of course, were in the velvet and only about 8 inches long. I could not save the head as I was about 400 miles from the Yukon and in very rough country.

Geo. L. Bull.

ANSWER.

When a naturalist describes an animal as a new species he does it solely on the evidence before him, and not on the opinion of any traveler or collector. Every naturalist of standing is so particular about the stability of his work, and so anxious it should stand the test of time, that it would be folly for him to be influenced by the desires of anyone. Dr. J. A. Allen, of the American Museum, described the specimens of mountain sheep collected by Mr. Stone without the slightest reference to the opinions of anyone else. The evidence before him, in 3 mounted specimens, unmistakably indicated a species new to the scientific world. Already a sufficient number of specimens have been collected to supply the great museums of New York, Chicago, and Washington, and they fully sustain the validity of the new species. In this part of the world, there is not the slightest question among scientific men, or any others, as far as I know, regarding the specific rank of *Ovis stonei*. You are the only man of whom or from whom I have heard, who believes that this animal is the same as the white sheep, *Ovis dalli*. If you had ever seen a specimen of Stone's sheep, I am sure you would not hold to your present opinion, for to consider it the same as the white sheep, you would have to doubt the evidence of your senses.

Ovis fannini was described by Mr. Hornaday wholly on the strength of a fine adult speciment which he found in the museum at Victoria. Any naturalist, in his senses, would have described it as a distinct species. Since that specimen was described, other specimens, confirming this species, have been received from Dawson, and are now at the American Museum of Natural History, and the New York Zoological Park.

If it is really true that the white sheep is given to developing all sorts of freaks in color, such as you say you have observed, this fact is important, and should be established by the gathering of specimens exhibiting these variations, and sending them to some scientific institution. If it is true that the white sheep varies its color in the remarkable manner described, you can make an extremely interesting contribution to

science by procuring and sending to the New York Zoological Society some pelts, or pieces of skin, which will establish the fact. It may be entirely possible that this animal is given to freakish variations in color, such as are not found in any other hoofed animal in the world. One fact in this connection is of interest and importance; namely, that no such variations as you describe have ever been observed in any other section of the home of the white sheep than around Dawson!

No one claims that all sources of information in regard to *Ovis fannini* have been exhausted. On the contrary, Mr. Hornaday's description of this animal is only the first step in the development of its life history, and all new facts regarding this creature will be of general interest. At present, however, the species seems to be well founded.

While it is quite true that many portions of the Northwest were explored many years ago, by Hudson Bay men, I must remind you that even the white sheep, with its wonderfully wide distribution, remained absolutely unknown to science and the world at large, until discovered by a naturalist of the kind that you seem to despise, in 1884! It makes no difference how many men went through the Stickine country before Mr. A. J. Stone; the fact remains that he was the explorer who discovered a remarkable, and unmistakably new, form of mountain sheep, and brought it out for introduction to the world, by Dr. Allen. Men who go about in strange places with their eyes shut are not explorers, in any sense of the word!

It is now up to you, Mr. Bull, to furnish some proof that the white sheep varies in color as you describe in your letter.

—EDITOR.

GROUSE SOMETIMES DRINK.

In regard to grouse drinking: A full-grown grouse that a friend of mine has in captivity drank, from the first, the same as a hen, only with a quicker movement in securing a mouthful of water before raising the head; but a younger one I secured at one time would only take water as it came down from above, as if the natural idea was to sip from the dew-laden leaves of plants at a level with or above the usual height of the head, or else take both food and water from the old birds, as do the nestlings of the robin or other birds of that class. As the little fellow had to be fed and watered by himself, although in a brooder with brown Leghorn chicks of about the same size and age, which were drinking and picking up food all around him, he was so much trouble that he was taken to the woods near the house, where the mother, that I had watched since she laid her first egg, could raise him in her own way. She was probably glad to receive him, as the 13 she had hatched were reduced to 3 or 4 the first month. The old bird in captivity here takes food and water about as a brown Leghorn hen does, and is enjoying the winter without hustling for himself.

F. S. Morgan, Milton, Vt.

In reply to the query by W. J. W., in March RECREATION, "Do Grouse Drink?" would say I saw a grouse drink at least once in my life. In the fall of 1900 I was hunting grouse and quails in the Southern part of Seneca county, near the postoffice of Lodi, N. Y. I was accompanied by Mr. William Brown, of Seneca Falls, N. Y., and Robert Neely, a farmer of Lodi. We entered a piece of woods and stood on the edge of a ravine which had a stream of water at the bottom. A large, strong grouse flew down the opposite bank, and, alighting at the edge of the running water, proceeded to drink, dipping its bill in the water and raising it skyward alternately until the action had been several times repeated. When Mr. Neely could not stand it any longer he launched his old 10-bore at the bird. I was glad to see it dart away unharmed. I think there is no doubt that the ruffed grouse drinks, as do the rest of its species, which of course include our domestic fowls.

Frederick W. Lester, Seneca Falls, N. Y.

One day in November, 1900, I was quietly walking through a swamp on a corduroy road, when I saw a female ruffed grouse sitting in the middle of the road at the edge of a little pool of water 30 yards distant. I stopped, and she must have seen me, for there was no obstruction to hide me from her view. She gently lowered her head and sipped the water, then raised her head to swallow, precisely as a chicken does. She then paused a moment, drank again, and flew into the timber.

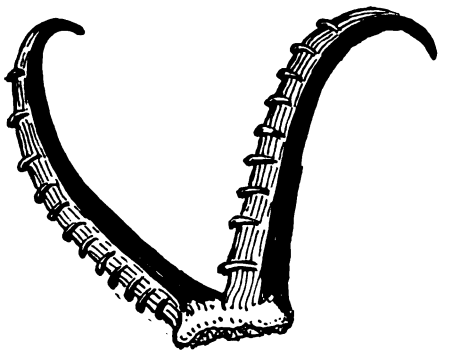
Wm. C. Held, Saginaw, Mich.

DOUBTS AN AMERICAN IBEX.

I notice a drawing in RECREATION of a head with the query, "Is it an ibex?" As I have hunted ibex a great deal, and have secured several good specimens, may I be allowed to express my most emphatic opinion that it is not. Enclosed is a sketch of a pair of ibex horns from the Eastern Soudan. They are about 36 inches in length, curving outward and backward, and do not, to my eyes at least, resemble in the smallest degree those in the drawing you reproduce. The head of an ibex is quite different from that of the animal of the Canadian Rockies, being more massive, shorter, and squarer. An old buck ibex with horns 3 feet long

would have a beard at least 6 inches in length.

The picture looks to me that of an antelope. The only point of resemblance to an ibex is the hair on the back. An ibex has a narrow streak of darker coat from head to tail, which, however, does not stand up.



The color of an ibex is a distinct brown, so commonly seen in the domestic goat. I have never seen either an Asiatic or an African ibex that could possibly be called ashy gray.

B. Cotton, Orlando, Fla.

If there were an American ibex it might be entirely different from any of the Asiatic or African types.—EDITOR.

SQUIRRELS RARELY MOLEST BIRDS.

I was much interested in Inkie's letter in February RECREATION. I want to tell you why I killed a few of Inkie's cousins. My home is surrounded by fruit and shade trees, with several butternuts and hickories among them. These trees are the home of numbers of song birds; also of several pine, or red squirrels. The little fellows had become quite tame, and we had become much attached to them, and watched them with pleasure. One day we heard a commotion among the birds and looking in the direction of the noise we saw a number of robins flying around a nest. In the nest sat Mr. Squirrel, in the act of eating an egg. That explained a mystery to me, as we had found several eggs and many bits of eggshells under the trees. To make myself doubly sure that the squirrels robbed the birds' nests I watched them, and saw them at it again; so in justice to the birds I had to end the life of our little squirrels. The pine, or red, squirrel is not protected, yet they are numerous. I should like to know if the larger squirrels rob the nests of birds.

John H. Browne, Penfield, Pa.

The grey squirrels in this city are protected by law and have become abundant and tame. Some citizens question the wisdom of protecting them, claiming that they destroy the nests and eggs of birds. As we have many fine shade trees, birds are probably more useful to us than are the squirrels. Please tell me what you think about it.

D. L. Floore, D.D.S., Columbus, Wis.

ANSWER.

As a rule squirrels do not molest birds at all. Wild animals and birds have personal characteristics just as human beings have. It is possible that some squirrels are vicious enough to disturb birds' nests, but in all my study and observation of the squirrel I have never known a case of that kind. At any rate they are certainly very rare.—EDITOR.

BREEDING BUFFALOES.

Mr. James Phillips, who owns a large cattle ranch near Fort Pierre, S. D., has about 60 full blood buffaloes in domestication. He has tried crossing these with native cattle, but says the result is not at all desirable or profitable; so Mr. Phillips is confining himself to breeding pure buffaloes. He considers this a good investment, as the robes and heads of mature animals bring good prices. He says he recently sold one head in New York City for $1,000, and that he finds a ready market for good specimens at $500 and over.

Mr. Phillips further says: "I have watched buffaloes under all the conditions of their life, and have discovered many interesting things about them. I used to wonder how the calves could withstand the terrible blizzards which occasionally sweep over our country, but now I know how it is done. When a storm comes the buffaloes form themselves into a triangle, with the bulls along the sides, the boss bull standing at the apex facing the storm. Then the cows range themselves inside the lines of bulls, and in the well protected center the calves and yearlings find their place. The mass is crowded well together into a warm and living whole, and even in the case of the outline of bulls only one side of any animal is presented to the blizzard. The herd will maintain this triangle as long as the storm lasts, and they are able safely to weather a storm that would kill our native cattle. There is something heroic in the stoicism with which the bulls will keep their places no matter how the storm may rage, and anyone who has seen the boss bull doggedly holding his head against a Dakota blizzard as he stands in the apex of the triangle will carry away a lot of admiration for his instinct and sacrifice. If a man wants to get a fine lesson in the advantage of 'standing together' he needs only to watch a buffalo herd in stormy weather."

TAPPING SOUND MADE BY CATFISH.

I notice in March RECREATION a letter from Mr. T. F. Covert, wanting to know what caused a tapping sound under the water.

Some time ago, while on a visit to Iowa, I had an experience similar to that of Mr. Covert. I had gone fishing on Grand river, and was sitting on an old log, which reached almost across the stream. Beside the log was a lot of driftwood, foam, etc. Under this trash I heard a peculiar noise. I decided to investigate; so I sat down to watch. I noticed that whatever made the noise, was moving, as the noise was in different places and occasionally the drift rose half an inch or so. Then the object moved to another place. The water was shallow as the river was low at the time. Finally a small particle of the drift floated loose, and started off, and I saw a channel catfish about 10 inches long make a grab at the drift piece. The water was clear, and I could plainly see the fish. It opened and shut its mouth while making the noise. All at once it darted off into deeper water. The noise sounded, as nearly as I can explain, like tapping on an empty egg shell with a lead pencil. I suppose the fish was feeding.

J. C. Warner, Stockton, Cal.

NATURAL HISTORY NOTES.

In February RECREATION I saw a question which I can partially answer, regarding crows destroying young squirrels. I had a pet crow which was taken from the nest when quite young. It was cared for until full fledged, and then allowed to roam at will about the premises. It had its leg broken, which, for the want of proper care, healed crooked. This bird never grew to be more than 2-3 as large as the ordinary crow. Neither did it ever fly far from the premises unless caught out and driven farther by wild birds, and never on such occasions did it fail to give chase. Notwithstanding its inferior condition, I have known this crow to attack and kill full grown chipmunks, rats and mice.

If this crow in its inferior condition, could do this, would not a full grown wild crow destroy young grey squirrels?

I have also seen a flock of crows flying, one of which dropped the body of a partly grown grey squirrel. I am confident that crows not only can, but do, destroy young squirrels.

Elmer S. Perry, Richwood, Ohio.

There must be some mistake in the illustration of a red-tailed hawk in your January issue; at least it is not the bird we have out here. Our hawk with the red tail has feathered legs and has not sharp shoulders or sharp angles anywhere. This bird lives on prairie squirrels, young rabbits and snakes. In the position in your illustration the tuft of feathers should cover the leg to the toes. J. H. Mackay, Norfolk, Neb.

ANSWER.

The bird you describe and that in RECREATION are both red-tailed hawks. Your bird has a naked tarsus, just the same as the other, but it is partly concealed by the long feathers of the thigh. The only hawks which have the legs really feathered down to the toes are the rough legged hawks, of the genus *Archibuteo*, and they are distinguishable at a glance from the members of the genus to which the red-tail belongs, *Buteo*.—EDITOR.

Mr. Duxbury's gem of information about the mink in RECREATION for March recalled to my mind a pleasing incident of an afternoon spent on Maple river, Michigan. I was casting up stream to the right when my attention was attracted by a mink diving into the water on my left. Resting on the bank and jutting out into the water was a corduroy log about 4 to 6 inches through. About 2 inches were in the water. The mink dived off this log with the current, came up on the other side, crawled upon the log and repeated the performance 6 times as I watched it. Finally it came up with a good sized trout in its mouth, which it carried away up a well defined runway to its home beneath a pile of drift. The little animal was perfectly oblivious to my presence, and nothing could excel the grace and ease of its sinuous motions.

James D .Ermston, Anderson, Indiana.

Will you kindly inform me, through RECREATION, what are the distinguishing markings, color, etc., of the cross, silver grey and black foxes. In fact, anything that will enable me to distinguish them apart, and more particularly between cross and silver grey.

N. W. Jackson, Clayton, Mich.

ANSWER.

The cross, silver grey, and black foxes are merely color phases of the common red species *Vulpes fulvus*, and not infrequently individuals are found which show considerable intergradation between the typical forms. The cross fox usually has a black cross over the shoulders, the pelage of the black fox is uniformly black, and that of the silver grey variety is black with white tips.—EDITOR.

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There are thousands of men in the United States who should be life members. Why don't they join? Will someone please take a club and wake them up?

STAY IN THE FIGHT.

Savannah, Ga.

Editor RECREATION:

I am in receipt of a letter dated March 1st, asking my aid in behalf of the Hon. John F. Lacey's bill to protect the game of Alaska. While I am still a friend of the birds and game of America, I am not for the last 2 years a member of the League. Nevertheless I shall write my Congressman and the 2 Senators from this State and request their favorable action on the measure when it shall come up.

You will recall that at one time I was a hard worker for the establishment of a chapter of the League in this State, but after more than a year of unsuccessful and disheartening labor, I gave up the project, and concluded that the task of civilizing the game hogs in this vicinity was a hopeless undertaking. Since that time I have done nothing toward protecting our feathery tribe and wild game.

During a residence in New Mexico, where there are strict laws for the protection of game, I saw on more than one occasion deer and antelope sold in the beef markets contrary to the law, and the authorities evidently winked at the violation. I have concluded that, in view of open violations where stringent game laws exist, there is little use in establishing laws for the protection of game anywhere if the officers of the law will not enforce them without fear or favor. In this country, where I am again living, we now have some excellent laws for the protection of game, but there is no attempt on the part of the officers of the law to enforce them.

If I were a man of wealth and leisure I could keep myself busy prosecuting game law violators, and nothing would give me more pleasure than to be able to keep hot on their trails. As it is, I am thoroughly disgusted and have decided that there is no other way than to let the game hogs and pot hunters kill out all the game; which they will have succeeded in doing in the next 5 years, unless the game hogs and pot hunters should themselves be providentially killed out at an early date.

James S. Estill.

On receipt of the foregoing letter I wrote Mr. Estill as follows:

Did you ever know a reform movement of any kind that was successful from the start? I do not know your sentiments on the question of temperance, but whatever they may be, you will, doubtless, approve at least some good things which temperance people have accomplished. You are aware that in the middle ages it was an almost universal custom of good people in both city and country throughout England, Scotland and Ireland, to get drunk every afternoon or night, and then to boast of it. Eventually a certain class of thinking people decided that this habit was shameful and degrading. They went to work to create a public sentiment against it. It took them 50 years to get the masses of the people to thinking their way. And to-day to see a drunken man is the exception in England as in America. The bibulous habit which prevailed in England at the time I speak of took strong root here, though it never became quite so general. To-day the masses of people in all walks of life condemn the man who gets drunk and makes an exhibition of himself. Suppose that after a year of hard work these temperance reformers had become disgusted and quit. The English people would still have been a nation of drunkards, and probably the Americans would, too.

Suppose that after a year of hard work all the pioneers in the organization of this League had become disgusted and quit. The slaughter of game would have gone on just as it was going on up to '98; but we have kept at work, and shall keep at it as long as we live. The results are already noticeable in many places. If you have been reading RECREATION you have noticed every month many reports of convictions of violators of game or fish laws in various States. If I had room to print all these reports that come to me you would realize that many thousands of men are convicted every year of law breaking and compelled to pay fines or serve out their sentences in jail. The League has been directly responsible for convictions of 853 men in its 4 years of work. Our members have contributed evidence and assistance that have resulted in the conviction of probably 3,000 other law breakers. Do you realize what it means to have a man convicted of such an offence in a small town? Well I do. I frequently hear from certain localities where we prosecuted a man 2 or 3 years ago, that neither that man nor any of his neighbors has dared to fire a gun in close season from that day to this, and that as a consequence of our work in such places game is increasing. In other cases where we have convicted one man who sold game in violation of law I am informed that from that day to this not a piece of game has been sold or offered for sale in that town or in any of the surrounding towns. Can you realize what this means in the matter of protecting game in the aggregate? I started in to advocate the enactment and enforcement of game laws 30 years ago. Suppose I had grown disgusted and quit at the end of the first year. There would have been no League to-day and no RECREATION magazine. I kept at it and shall keep at it as long as

my strength will permit me. The result is that to-day the League has 8,000 members and RECREATION has an actual paid circulation of 65,000 copies a month. It is safe to assume that each copy is read by 5 people. That means 325.000 readers each month. I have heard from probably 100,000 of these people to the effect that they have been completely reformed by its teachings; that while they were formerly game butchers they are now temperate, up-to-date sportsmen and gentlemen. Read in April and May RECREATION reports of the annual meeting of the League, held in February last. Then tell me whether, in your judgment, it has paid for the friends of game protection to stick at it; or whether it would have been better for all to have done as you have done—get disgusted at the end of a year and quit because they could not reform the world in that length of time.

GOOD WORK IN PENNSYLVANIA.

Hollidaysburg, Pa.

Editor RECREATION:

Two years ago I joined the L. A. S. and at once began active work in this place and vicinity to save the game, as little or no attention was then paid to the game laws. I tried to get all our sportsmen into the League. I was not successful, but that did not discourage me. I kept on working. I persuaded my bosom friend and hunting companion, Mr. William Gardner, to become a member of the League, and we have been working ever since to protect the game here.

Last fall Mr. Dan Duncan, a well known sportsman, joined the League. We 3 members got down to work in earnest a few weeks before the opening of the shooting season, as large numbers of squirrels were migrating to this section of the country and were being killed by the pot hunters. A number of League posters were procured and we posted them throughout the game sections of Blair county. We spent all our spare time traveling through the woods and fields putting up these notices, some of which were torn down, but were replaced by us with new ones. These notices stirred up the whole county, and caused the majority of the illegal hunters to stop their nefarious work immediately. One place along the foot of Brush mountain was inhabited by a large colony of grey squirrels. That section was posted thoroughly. When a hunter went that way he saw the warning pieces of muslin staring him in the face in all directions and hastily passed on. We saved nearly all these squirrels, as a good farmer friend of ours told us he did not hear a gun fired after the place was posted. Posters were sent to places where we could not go ourselves and were put up by friends.

Our next step was to collect a fund to pay special officers to ferret out the violators of the game laws. We circulated a subscription paper for this purpose among the sportsmen and secured a goodly sum. The constables under the new laws are required to act as game and fire wardens and have the authority to arrest without a warrant; also to search any person they suspect of having game. The services of 4 constables were secured and we agreed to pay them $2 a day for every day they went out, whether they were successful or not. They knew that for every successful prosecution they would receive $10 reward from the State and one-half the fines. They were, therefore, anxious to go. If they did not catch anyone they would still get the $2, which would pay them for their trouble. They scoured the county thoroughly and searched several suspected persons but found no game. One officer chased two men with guns for about an hour over the mountains but could not catch them.All this caused much excitement and although no arrests were made the desired effect was attained. Little or no hunting was done until the opening of the season Oct. 15th.

We asked the judge of the county to advise the constables to perform their duties as ex-officio game and fire wardens; and he did so in open court when the constables assembled to make their returns.

A farmer in the Eastern part of the county, last September made complaint against a man by the name of Estep, whom he charged with shooting a turkey out of season. The constable arrested the wrong man, a brother of Estep. The case was dismissed and the guilty man has not yet been arrested.

A few days after the season closed last month we were informed that wild turkeys were being killed from blinds in the Loop, a section of mountainous country where turkeys always gather in the winter, as they can find plenty of feed there and are well protected from the storms; this Loop being a long basin, hemmed in by high mountains. We set to work at once to gain all the information possible, and asked Constable James Stanley, one of the officers whom we had hired earlier in the fall, to give the matter his attention. He went to work at once. With our assistance he discovered the names of the men who were killing the turkeys and secured a number of excellent witnesses, some of whom had seen the pot hunters at the blinds, and others who had seen them shoot birds. The constable made information the against the offenders last Monday and each gave bail to the amount of $300 for

his appearance at a hearing, which was held Saturday afternoon. I was unable to be present but Mr. Gardner was there and gave valuable aid. He will write you shortly and give you a complete description of the hearing. Both sides were represented by counsel and the case was appealed to court. The Squire's office was thronged with interested spectators, and as the case is the first of the kind here, it has stirred up much interest. If it is taken to court, the League should cooperate with us to win it, as it is of the utmost importance that we do so

Harry P. Hays.

REPORT OF NEW JERSEY DIVISION.

During the past year I have caused printed posters of the League to be put up in all available conspicuous places, and have had several hundred circulars printed and distributed as far as finances would permit. I have destroyed several set lines, etc., during the year, but could get no evidence for conviction. I have failed to convict several corporations for polluting the rivers. This has cost much money, and the State also failed.

Local Warden D. Hunt, of Wauaque, in company with 2 other wardens, caused the arrest of 2 people for Sunday gunning. One was fined $20 and costs and the other got 90 days in the county jail.

REPORT OF C. M. HAWKINS, LOCAL AND STATE WARDEN.

Frank Ditale, killing robin, $20 and costs.

Michael Lyons, spearing fish, $20 and costs.

Geo. Clark, dog running at large, $20 and costs.

Wm. Baldwin, dog running at large, $20 and costs.

American Copper Co., polluting Rahway river, $100 and costs.

REPORT OF LOCAL WARDEN MITCHELL.

Lyman Carter, killing grey squirrel, $20 and costs.

Several of the local wardens have not rendered any report.

Our laws for the protection of game are in many instances bad. Woodcock shooting is allowed in July and October, and everything is killed before the open season. I have been fighting against a bill in our present Legislature which allows the use of nets during November and December for catching suckers. Anyone knows that all kinds of fish must suffer. It is one of the worst laws that could be on statute. I am informed on good authority that this bill has now passed the house and is signed by our Governor. God help our game fishes as well, for a warden can not stand by every haul. Our Fish and Game Commission recommended a change in our laws forbidding the sale of game at all times, and a gun license; but we all foresee the doom of these bills when our honorable body passes such a rotten law as to allow netting at any time. It will undo what our Commission has so nobly done the few last years in restocking at great expense. I shall see to it, personally, that our sloughs, etc., in my section are driven so full of stakes during the fall that it will be an utter impossibility to draw a net, and shall so advise all my local wardens, as well as the public generally by circulars, etc. The swine are already planning in the country stores their slaughter for the coming season. I have done all in my power for the enforcement of our laws. Vice-Warden Colfax has done some good service in analyzing waters, etc., and aiding me generally.

A. W. Van Saun, Chief Warden.

LEAGUE NOTES.

The Blair county branch of the League of American Sportsmen scored a victory at the office of Justice C. G. Lowry, when John Wertz, Warren Wertz and William Robinson, 3 Frankstown farmers, recently convicted of violating the game law, appeared, and through their attorney withdrew their appeals from the judgment recorded against them and submitted to the sentence of the court. John Wertz and Warren Wertz were committed to jail, the former to serve 75 days and the latter 50 days. William Robinson paid his fine and costs, aggregating $56.68. The case against Al Campbell will probably be discontinued upon payment of costs by defendant. To the clever detective work of Constable James Stanley and Patrick Burke, special officers of the League, is due the successful enforcement of this sharp lesson to the poachers of the county that the League is in earnest in its crusade against them. The fortunate officers will have the division of rewards aggregating about $75—Hollidaysburg (Pa.) Register.

Thus you see the League is still doing things. It will keep on until all pot hunters and poachers are convinced that it does not pay to break the law.—EDITOR.

I have lately secured through personal effort the conviction of the following 8 men for selling quails and prairie chickens:

William Waterman, Cooper, Iowa, fine, $35.

Richard Waterman, Cooper, Iowa, fine, $35.

Jed Hunter, Cooper, Iowa, fine, $25.

Harry Town, Cooper, Iowa, fine, $65.

Charles Hepty, Cooper, Iowa, fine $105.

Ed. Searle, Jamaca, Iowa, costs.

James Andrews, Jefferson, Iowa, fine $25.

Walter Lockwood, Herndon, Iowa, fine, $65.

These men are all from a neighborhood that has been notorious for violations of the law. I think I have them cured.

S. C. Quinby, Chief Warden,
Des Moines, Iowa.

FORESTRY.

EDITED BY DR B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes thirty years to grow a tree and thirty minutes to cut it down and destroy it.

THE MANZANITA

The common manzanita of California is a magnificent evergreen shrub, usually 8 to 15 feet high, with highly polished mahogany colored branches and berries. It is an exceedingly common shrub throughout the region, generally occupying wide areas on dry, barren ridges, often to the entire exclusion of other vegetation, and in masses so thick that they are impenetrable to man. The ways in which the plant is used for food or medicine by Californian Indians are discussed by Dr. V. K. Chestnut in a recent bulletin of the Department of Agriculture.

"The fruit is not much more than 1-3 inch in diameter, but the quantity produced is large. It was used extensively by the Indians when the Spanish priests first settled the country. From the priests it received the name 'manzanita,' which means 'little apple,' and was suggested by the shape of the fruit. This name has been universally adopted as the common, as well as the botanical, specific name of the shrub. The generic name, *Arctostaphglos,* is deriver from 2 Greek words meaning 'bear' and 'grapes.' Bears are exceedingly fond of the fruit, and it is in manzanita patches that they are hunted during the summer and autumn. The ripe fruit is dry, mealy, and nutritious. Its time of ripening used to be memorialized by the Concows and other tribes by holding a special dance and a 'big eat.' The green fruit is tart and so indigestible that it is likely to cause colic, but when eaten in small quantity it is of great value in quenching thirst, an item of importance, because the shrubs often grow on dry and barren hillsides. During July and August, when the berries are ripe, a number of squaws go out into the hills with their babies and their huge carrying baskets and beat off large quantities of the berries. These are caught in the baskets and carried home, where they are eaten raw or cooked, converted into cider, or stored away for winter. During the gathering, which may last a considerable time, the babies are protected from thirst by wrapping them in the soft, flexible green leaves of the mountain iris.

"The Yoki Indians recognized the fact that the bushes do not all yield equally well. On that account certain large and prolific bushes, and even large areas, were owned by a family or a tribe, and only after the rightful owner's demand was satisfied could the fruit be picked by others. Tribute was often exacted for permission to gather food materials from such property.

"Manzanita berries are eaten in great quantity, but some tribes, especially the Numlakis, use them as a powder, like *pinole,* or cooked in hot ashes and made into bread or mush. Death is said to occur from eating the fruit too freely. The bowels become stopped with great masses of seeds and pulp and death follows, with contraction of the pupils and general tetanic spasms, such as are observed with strychnine poisoning or in the symptoms of cerebro-spinal meningitis.

"The method of making manzanita cider as practiced by one of the more civilized Concow women is worthy of note, for from personal experience the beverage can be recommended as delicious. The ripe berries, carefully selected to exclude those that are wormeaten, are scalded a few minutes, or until the seeds are soft, when the whole is crushed with an ordinary potato masher. To a quart of this pulp an equal quantity of water is added. The mass is then poured immediately over some dry pine needles or straw contained in a shallow sieve basket, and the cider is allowed to drain into a water-tight basket placed beneath, or sometimes it is allowed to stand an hour or so and then strained. After cooling, the cider is ready for use without the addition of sugar. It is delightfully spicy and acid in taste. From information obtained, it seems probable that some of the Indians not only ferment the cider to obtain vinegar, but also to obtain an alcoholic beverage. The Yoki name for the cider is *ko-och-ok.*

"A better quality of cider is said to be made from the pulp alone. The berries are ground up in a 'pounding basket' and the seed fragments separated by means of a flat, circular basket about a foot in diameter. Some of the ground material is placed on this, and it is then thrown repeatedly into the air, falling on the mat when it is in an inclined position. The fine flour will cling to the meshes, while the heavier seed parts will roll off on the ground.

"The Calpella Indians make a tea of the leaves to cure severe colds, but they are

commonly regarded as too strong for internal use. In this connection it is interesting to note that the leaves of a closely related species have recently been manufactured into an extract for the cure of catarrh of the throat and stomach. The Little Lake Indians boil the leaves till the extract is yellowish red and then use it as a cleansing wash for the body and head; in the latter case to stop some kinds of headache. The leaves are also used by them, and by many white people of the country, to check diarrhœa. An analysis of the dry leaves, made by W. H. Rees, of the University of California, shows that they contain about 8 per cent. of tannin.

"The old Concow women chew the leaves into a thick cud and place the mass on sores for the healing effect. The younger people grind up the leaves with water before applying. This pulp is also used for sore backs on horses.

"Bees gather large quantities of honey from the flowers from January to March, and children are fond of sucking or eating the globular, waxy flowers."

NUT GROWING.

Almost everyone who owns a farm, or even a city lot, plants fruit trees and greatly enjoys cultivating and watching them grow; but few people plant nut bearing trees. Some who have planted them have been disappointed, as some nut trees, like chestnuts, are difficult to grow in certain soils. Other people have been disappointed because of nuts failing to germinate when carefully planted in suitable soil. Nuts permitted to dry, even for a few days, are not at all likely to grow. All nuts and acorns intended for planting should be stratified in earth or sand as soon as out of their hulls, and never permitted to become dry. At one time I bought nuts from the largest dealer in tree seeds in America, and after planting with great care I failed to get a single nut to germinate. Again I got nuts of the same variety direct from the hulls, cared for them up to planting time and succeeded in germinating over 90 per cent of all planted. If nuts at time of hulling are mixed with sand or ordinary garden soil, neither too wet nor too drv, and placed in a cool cellar, or buried in a well drained spot in open ground until planting time, few will fail.

Ten years ago I planted a pecan nut sent me by a friend in Missouri. The tree, now about 30 feet high, is shapely and greatly admired by all who see it. It bore sparingly in 1900, but quite freely the last year; and the quality of the nuts is of the highest, there being no trace of the not unusual, but unpleasant, pig nut flavor. The tree withstood a temperature of 38° below zero without injury to a single twig. Because of the quality of the nuts and beauty and rarity of the tree I prize it highly.

Japan walnut trees are desirable for planting, being hardy, of rapid growth and bearing nuts early in life.

Some interesting results have been obtained by hybridizing the different walnuts; and without doubt timber and nut trees of great value will be obtained as progeny of these, and from further hybridizing. A large and enticing field is here open to anyone who will carefully cultivate it. Mr. Burbank, the greatest hybridizer of the age, if not of any age, has created some remarkable trees in hybrid walnuts. Of one of these,which he named Paradox, he writes: "Paradox surpasses all others in rapidity of growth and size of foliage. Trees 6 years of age are fully twice as large, broad and tall, as black walnuts at 10, or Persian walnuts at 20 years of age. Ten to 12 feet growth a year is not unusual. The leaves, often 2 feet to a full yard in length, are clean cut, glossy, bright green, and have a surpassingly sweet odor, resembling that of fragrant apples, and as powerful and peculiar as that of roses or lilies. The bark is thin, smooth, light gray, with markings of white. The wood is compact, with lustrous, silky grain, taking a beautiful polish; and as the annual layers of growth are often an inch or more in thickness, and the medulary rays prominent, the effect is unique."

This may seem like fulsome praise, but it is well known among horticulturists that Mr. Burbank under rather than over states the value of his productions. How can any tree lover resist the temptation to plant such trees?

Another of his hybrids he named Royal, and worthy it is of its name. It is as hardy as the black walnut, while the quality of the nuts is superior and they are of the largest size. Meats are large, part readily from the shell, and have none of the strong, disagreeable flavor of the black walnut. While the Paradox is a shy bearer, the Royal bears abundantly at an early age. Royals on my own grounds have made a growth of 46 inches within 6 months of planting the nut, and are erect, shapely trees, with little or no pruning. If you wish a nut tree that will excite the admiration of every tree lover, plant a Royal.

The Persian, or so-called English, walnut is worthy the attention of nut growers of the North as well as the South, for nuts and trees are now to be had that are hardy in Northern Ohio and New York.

E. P. Robinson, Sidney, Ohio.

PURE AND IMPURE FOODS.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH. D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

SOME FACTS ABOUT HONEY.

Honey, as everyone knows, is a thick, sweet liquid of more or less pronounced flavor, produced by bees of various kinds and by other insects. The neuter or working bees gather the nectar from the nectaries of flowers, and other sweet substances if flowers are lacking, extracting it by means of the proboscis and passing it into the crop or honey bag. The bee disgorges the honey into the cells of the comb. Apparently the sweet substance undergoes some change in the honey bag, as honey differs in flavor from the nectar of the flowers from which it is gathered. The consistency of honey varies with age and is influenced by its source, that from some flowers being much thicker than that from others. The flavor also varies with the source from which it is gathered, that from clover, sweet clover, basswood, or linden flowers, for instance, being agreeable, while that from buckwheat is strong and less generally liked. Age also affects the flavor. Some honey which at first has a weedy taste loses this on keeping.

Honey has on an average the following percentage composition: Water, 18.2; protein, 0.4; carbohydrates, 81.2, and ash, 0.2. The carbohydrates are made up of dextrose and laevulose in about equal proportion. Honey contains some aromatic bodies which give it flavor, and sometimes a little wax. The best and newest honey is clear and contained in a white comb. Older honey is of a yellowish tone and sometimes darker. On standing, dextrose sometimes crystallizes out from the liquid honey, rendering it opaque or often thick. The composition of honey varies somewhat according to the food of the bees, their age, season, etc. Hyblas, a mountain in Sicily, and Hymettus, a mountain in Attica, were in ancient times celebrated for their honey, doubtless in consequence of the wild thyme and other fragrant herbs growing on them. Since earliest times man has appropriated the honey gathered by wild bees and bees of different kinds that have been raised in hives to produce it in quantities under favorable conditions. It is a favorite article of diet owing to its sweet taste and agreeable flavor. The actual food value depends on the carbohydrates present. Like all other carbohydrate foods, it is a source of energy in the body. Honey has a fairly high fuel value, on an average 1520 calories a pound. It is, however, generally eaten for its flavor rather than for its food value. Honey is most commonly eaten as relish, with bread and other foods. In Europe it is generally served with rolls and coffee for breakfast. Many Americans use honey as they do syrup, with hot bread or cakes. Before sugar was as plentiful as it is today, honey was used for sweetening foods, and some cakes are made at the present day, especially in Germany and Switzerland, in which it is so used. Candy is sometimes made from honey. It is said that it is always used for making the genuine nougat. Doubtless little of the confectionery which is sold under that name contains honey.

To the ancients who were unacquainted with sugar, honey was of more importance than it now is. "A land flowing with milk and honey" offered the highest conceivable advantages to the Eastern mind. Taken in moderate quantity, honey is wholesome and laxative, but persons suffering from digestive disorders often find that it aggravates their symptoms; and there are persons in health who, owing to some idiosyncrasy, can not eat honey without distress. Its therapeutic action is probably not great, but it is frequently employed in mixtures prescribed for allaying coughs and in various agreeable cooling drinks used in febrile and inflammatory affections.

It should be mentioned that honey occasionally possesses poisonous properties, due to the flowers from which it was gathered. The poisonous honey of Trabizond is gathered from *Azalea pontica*. In America, poisoning has occurred from eating honey gathered from laurel, *Kalmia latifolia* and *Kalmia augustifolia*. Many other instances of poisonous honey are on record.

Honey is marketed in the comb and also extracted from it. The latter, sometimes called "strained" honey, is frequently adulterated with commercial glucose. It is stated that much of the so-called honey which is sold contains none of the product gathered by the bee, and is entirely artificial. Of 68 samples of honey recently examined by the Massachusetts State Board of Health, 15 were adulterated with cane sugar or commercial glucose, or both. One sample contained as high as 88 per cent. of commercial glucose.

PACKING ORANGES IN SPAIN.

"In no instance are the oranges in Spanish groves plucked," says a recent writer, "but with a short pair of clippers, resembling wire-cutting pliers, they are slipped

from the stem, 3 or 4 oranges being received by the left hand at a time. Before placing the oranges in the basket, the portion of stem remaining on the fruit is cut close; boys with baskets slung from their shoulders being employed to climb for the fruit beyond the reach of the men. When 20 or 30 baskets are filled, the cart comes along and carries them off to the packing houses; the first layer of baskets being placed in a swinging shelf underneath the cart, the second on the bottom, and the third on a layer of boards forming an upper tier, so that little or no pressure is put on the oranges. Mules and horses are utilized for reaching portions of the orchard inaccessible to carts. They carry about 6 or 8 baskets on wooden crates slung across the backs of the animals, and on arrival at the packing house the fruit is emptied on the floor to the depth of not more than 12 to 18 inches; sand and straw being frequently distributed to receive it. A typical packing house, in Spain, has a floor space of about 70 by 120 feet, to evade the necessity for shelves in laying out the fruit; the shelf system being deprecated by the packers as causing unnecessary handling of the fruit, and being less accessible to the sorter. There are no sizing machines in use, as they save nothing in time and labor. Each orange is individually culled, with or without them; but the Spanish women are experts at this business.

"The buildings are divided into 4 departments, namely, sorting, wrapping, box making and packing. The sorting is the most important portion of the work, and is generally accomplished by elderly women of long experience. The oranges are so assorted that damaged or imperfect fruit, or fruit with a blemish, such as a wormhole or a depression from contact with a branch while growing, or fruit which for any other reason the sorters may consider unfit for shipment, may be laid aside. Under this head 20 per cent. of the harvest is rejected, and finds its way to local markets. Much care and study have been bestowed on the classification of the oranges; for we find that they are packed into boxes of some 7 different sizes.

"Between the sorters and the packers are the wrappers, sitting in groups around heaps of the fruit, each heap of a certain class, supplied by the men who take them from the sorters. Here again the oranges are subject to further inspection, and blemished fruit which may have escaped the scrutiny of the sorters is thrown aside. No oranges are shipped from Spain which do not bear on each end of the case a stencilled trademark, or brand, of the packer; also number of oranges contained in the box. The brand also indicates whether the fruit is of good quality, or finest or superior quality. The wrapper has a pile of cut papers in her lap, and, dextrously placing an orange at one end, she rolls it from her, gathering the ends in a tight twist at each side, which holds the paper in place prettily and perfectly. An ordinary hand can do 20 to 25 a minute. The wrapping paper is of a fine, soft, silky quality, made in Spain. The cost there for enough to wrap an average of 240 boxes is 80 pesetas, or about $10, according to rate of exchange; stamping, 20 pesetas, or nearly $5. The wrapped fruit is then carried to that portion of the house where the oranges are packed in their respective boxes according to size and class.

"The packing is done by girls, 2 of them putting up a box of 714 in 15 minutes and a box of 420 in 10 minutes. When the box of oranges is packed ready for the lid, it appears much too full, the top layer being nearly half their thickness above the level of the box edge.

"When the carpenter has finished nailing on the cover, small boys come along with strips of rawhide and nail them around each end in place of hoops. Finally the box is handed over to men who dextrously and firmly bind each round and round with some 10 or 12 yards of cord plaited from esparto grass. The boxes are then carried to the *grao*, or beach, where they are loaded on surf boats and conveyed to the steamers lying at anchor in the roads some half a mile away."

WATER IN BUTTER.

The average quantity of water contained in American butter has been calculated as about 12 per cent. The quantity of this constituent, however, is variable, depending on a number of conditions, some of which have been recently investigated.

In a study of the effect of salt on the water content of butter, chemical analyses showed that the salted and unsalted butter, in lots worked once, contained respectively 12.74 and 15.12 per cent. of water. In lots worked twice, the salted butter contained 10.53, and the unsalted butter 14.33 per cent. of water. The unsalted butter always had a dry appearance, but in every comparison it was found to contain more water than the salted butter. In this case it made a difference of about 3 per cent in the water content of the butter.

The effect of the size of the butter granules on the quantity of water in butter was also studied. About 300 pounds of ripened cream was divided into 2 lots, one of which was churned in a box churn until the butter granules were about the size of clover seed, while the other lot was churned in a combined churn and worker until the butter granules were about the

size of corn grains. Both lots were salted and worked to the same extent, except that one was worked on a table worker and the other in the combined churn and worker. Eleven trials of this kind were made. The average water content of the butter churned to large granules was 13.89 per cent., and of the butter churned to small granules 12.15 per cent.

In other experiments the temperature of the butter during working was also taken into account. In each of a number of comparative tests cream was ripened, cooled, and divided into 2 equal lots, both of which were churned under uniform conditions, and were otherwise treated alike except that one lot was washed with cold water and the other with comparatively warm water. In 3 of the comparisons, where the granules were of the same size, an average difference of about 25 F. in the temperature of the wash water made a difference of about 2½ per cent. in the water content of the butter. The softer butter, resulting from the use of the warmer water in washing, contained, in every case, the most water. In one of the tests, washing coarse granular butter with water at 45 degrees was compared with washing fine granular butter with water at 70 degrees. The percentage of water in the butter made in the 2 ways was, respectively 14.07 and 17.50 per cent.

These experiments show that the presence of salt, the size of the butter granules, and the hardness of the butter are factors exerting an influence on the quantity of water in the butter. Where a dry butter is desired, as for export, these principles may have considerable practical importance. By churning cream at a low temperature and continuing the churning until the granules were as large as peas, washing for about 30 minutes with water at 45 to 48 degrees, and working twice, butter was secured containing as low as 6.72 per cent. of water. Of 32 analyses of samples of butter made in this way, 7 showed less than 8 per cent. of water, 7 from 8 to 10 per cent., and 10 from 10 to 12 per cent. It is not, however, advised by the experimenters that export butter should be made with less than 9 to 10 per cent. of water.

THE OLDEST BREAD IN THE WORLD.

The Egyptians placed their mummies in carefully constructed tombs to await the return of the soul, and often surrounded them with jewels, flowers, food, and other articles which it was believed the soul would need in the spirit world, or on its return to earth. When the tombs are opened by modern explorers the jewels are bright and the delicate and fragile flowers are often marvelously well preserved, seemingly no older than the blossoms sometimes found pressed in an old book. The fruits which have been found in Egyptian tombs, though discolored, have more or less of their well known form, and are easily recognizable as sorts which are grown at present. The bread made in old Egypt and seen in the museums today does not appear appetizing. It is dark in color, and looks as if it had been charred. It seems hardly possible that anyone could tell from what grain the flour used in making it was ground, or whether it was leavened with yeast, or made from only flour and water. However, some Egyptian bread made 4,000 years ago was recently discovered by an explorer, and found its way to the laboratory of a German scientist. Upon examination under a microscope it was evident that the bread was made from ground barley. This could be readily known, since the flour ground from each sort of grain has distinguishing characteristics. The barley cake had been leavened with yeast, for the yeast cells were plainly visible. The yeast was not of choice quality, and the bread must have had a sour taste, since the remains of other bacteria similar to yeast plants were also found, one being very like the microscopic plant which produces butyric acid. The starch of the flour, when baked so long ago, had been largely gelatinized. However, a small quantity of material was found which gave a marked blue color when treated with iodine. This was undoubtedly starch, for it is well known that nothing else will give this characteristic color reaction. The bread thus contained some unchanged starch; and though the quantity was small, it was just as truly food as any starch we might buy today. The minute starch grains, too small to be studied except with a microscope, had remained unchanged while empires passed away, and the baker, and the king who ruled over him, had been alike forgotten. The dark color of the bread when found is possibly due to slow oxidation; that is, the oxygen of the air slowly burns the material and it becomes charred as it would if more quickly burned by fire.

It is, perhaps, hardly necessary to say that the yeast plants seen were dead cells, no longer capable of reproduction. Life in all its forms seems limited in duration. The dormant seed or the minute reproductive body of the yeast plant dies after a time, just as surely as a larger tree.

The statement is often met with that grain found in ancient tombs has sprouted and borne fruit. It is almost certain that such tales are untrue, for no such results have been obtained when the tests were made by scientific methods and all chances of fraud excluded.

BOOK NOTICES.

ANIMALS OF THE PAST.

Ordinarily, the literature of extinct animals is about as lively as Jurassic reptiles *in situ;* but the book by Mr. Frederick A. Lucas, of the U. S. National Museum, is a bright and shining exception. It tells the reader precisely what he most wishes to know, and secondly, it is written in a bright, breezy and cheerful style. Heretofore nearly every scientist save the late Dr. Coues, has written in the orthodox style of funereal and polysyllabic solemnity; easy to write, but confoundedly hard to read. Mr. Lucas boldly writes as he talks, and the result is delightful.

The reader is made acquainted with the mammoth and the mastodon, the giant dinosaurus, 40 feet long, the awe-compelling triceratops of the Middle West, the toothed birds and the ancestors of the horse. All these and many more are introduced to the reader so effectively that a permanent acquaintance with each is quickly established. To quite an extent "Animals of the Past" is a handy guide to an acquaintance with the marvellous extinct animals of North America, of which so many have been discovered during the last 20 years and all of which are yet practically unknown to the great majority of people. People who live in Wyoming, Nebraska and Montana, in particular, will be deeply interested in the descriptions and figures of the wonderful and mysterious creatures which once inhabited those States, and whose fossil remains now fill the halls of our finest museums.

The whole book is commendably free from technical terms, and commendably filled with pertinent and useful facts clearly stated. As a book for space fillers it will prove a perfect Godsend, and inasmuch as it is certain to strike 12, it will presently be imitated without limit. Let us hope it is the forerunner of a more lively and readable style in scientific literature.

ANIMALS OF THE PAST, by Frederic A. Lucas, Curator of Comparative Anatomy, U. S. National Museum, 8 vo., cloth, pp. xx-258, 41 ills. New York: McClure, Phillips & Co. Price, $2 net.

A story of the present West is "The Captain of the Gray-Horse Troop," by Hamlin Garland, with the scene laid chiefly in an army fort on an Indian reservation. Its motive is Mr. Garland's own deep interest in the Indians and his earnest desire that the remnant of these peoples may be saved from extinction, not by forcing them into a life unnatural to them, but by permitting them to retain as many of their native customs as possible, and by training them to be self-supporting along the line of their inherited aptitudes. In Captain Curtis, the hero, whom the Indians know and love as Swift Eagle, Mr. Garland has portrayed the man who goes straight to the mark, strong in his faith in himself and in the righteousness of his work. A beautiful young artist, painting pictures of the Indians at the Fort, furnishes color and romance. With the mountains, the plains, the garrison life, the dress and customs of the Indians, Elsie Brisbane's beauty and the uprising of the white settlers against the Indians, the story is exceedingly picturesque, and gives Mr. Garland much opportunity to depict the scenes he loves best. Harper & Bros., New York, publishers.

To read "Next to the Ground," by Martha M. Williams, is to spend dreamy, happy, care-free days out of doors, on an old Tennessee plantation, where every animal is an individual, every tree and bird and blossom, important. Mrs. Williams' style is charmingly simple and joyously free from theories. She tells the story of the fields, the woods, the birds, the night, the snow, the hunting, and everything that makes the daily interest of those who work in the soil and live simple, natural, country lives. These "Chronicles of a Countryside" are full of the light of the sky, the quiver of leaves, the calls of the speechless ones, the flutter of wings, sweet smells of wet earth and the sound of the huntsman's horn. Mrs. Williams has a keen sense of humor, which reveals itself deliciously in her point of view toward the tricks and whims of the familiar domestic animals, as well as the wild things; and the record of these country days shows matchless observation.

Published by McClure Phillips & Co., New York.

Mr. Burt Jones, 855 Beacon Street, Boston, Mass., has collected a large number of photographs of live moose. Most of these pictures were made in the woods of Maine and Canada, and show the moose in almost every possible position or form of action. These pictures must prove of inestimable value to artists, taxidermists and nature students in general. The pictures are strung together by stories of moose hunting and observations on the habits of the animal, and the whole batch is published in a neat and tasteful book of 144 pages. It sells at $2. If interested send for a copy.

PUBLISHER'S NOTES.

NEW STYLES OF KODAKS.

The Eastman Kodak Company has issued a new catalogue that fairly sparkles with jewels of photographic science. The Eastman Company has added several new cameras to its already extensive line, and to see pictures and read descriptions of some of these, makes one long to get outdoors and make pictures. One of the new features is a No. O folding pocket Kodak, a miniature picture machine, which is scarcely larger than a cigar case, but which makes a picture 1⅝ by 2½ inches. This is not only a pocket Kodak, but might reasonably be termed a vest pocket edition. You can readily carry it in the inside pocket of your coat, and no one would know to look at you that you were loaded. If you make a sharp negative with one of these cameras you can make enlargements from it to 5 or 6 times the original size, that will have all the good qualities of the original contact print.

Another recent production of the Eastman factory is a No. 3 folding pocket Kodak *de luxe*. This superb instrument is the same construction as the original No. 3, but is equipped with a Bausch & Lomb plastigmat lens and a Bausch & Lomb automatic shutter. The box is covered with Persian morocco, which has a beautiful natural pattern in soft brown tints, and the bellows are covered with brown silk. On each instrument is a solid silver name plate, and the whole business is enclosed in a hand-sewed carrying case of Persian morocco, with silver trimmings. This instrument sells at $75, but it is worth that simply to look at and to play with, if you should never make a picture with it. It is one of those artistic, fascinating bits of mechanism that one can revel in for a whole evening, and it will interest any visitor who may come in, no matter if he be a camera crank or not. Then when you do have occasion to go photographing, this camera, if shown at the door, would admit you to any brownstone front on Madison Avenue.

The Eastman people also describe and illustrate in this new catalogue a stereo Kodak, a No. 2 Brownie, and a plate attachment for a No. 3 folding pocket Kodak; also a new folding head tripod.

The Eastman people are now furnishing the famous Bausch & Lomb plastigmat lenses on any and all their cameras, when so ordered, and the man who can not make good pictures with such an equipment as this company can furnish, may as well quit trying and shut up shop.

Nowhere in America can be found more glorious opportunities for fishing and hunting than in Northern Maine. Moosehead lake is a beautiful sheet of water, with 400 miles of shore line. There is to be found the best trout and togue fishing in this North country. Canoe trips in the different waters of this famous region are exceedingly popular, and the enthusiastic fisherman who has heretofore canoed on the calm surface of a placid lake will realize the difference when running the rapids of some of those mighty rivers which cover hundreds of miles of waterway.

The Guide Book of the Bangor & Aroostook Railway, "In Pine Tree Jungles," gives full information regarding this region. Sportsmen and pleasure seekers should not fail to write the Railway Company for a copy of this book before deciding where to spend their summer or fall vacation. Please say you saw the book mentioned in RECREATION.

Yawman & Erbe, Rochester, N. Y., makers of the famous Automatic reels, have offered 3 separate prizes, of $25 each, to lucky anglers who may see fit to compete for them this season. One of these prizes is to go to the man who takes the largest trout during the season of 1902, on a Y. & E. Automatic reel. The second prize goes to the man taking the largest black bass with a Y. & E. reel, during 1902. These people also offer a prize of $25 for the largest fish of any other kind taken with a Y. & E. reel during the year.

I should like to see RECREATION readers win these prizes. Write Yayman & Erbe for contestant's blank, and please say you saw the competition mentioned in RECREATION.

W. J. Reynolds, general manager of the Racine Boat Manufacturing Company, writes me that nothwithstanding they have increased their capacity 25 per cent. this year, they are already behind their orders, and will not be able to come anywhere near filling them promptly throughout the season. The Racine people have been advertising in RECREATION 3 years, using full pages all the time, and this is why they have more orders than they can fill.

Our January business was 2½ times that of January 1901, February was 6 times that of February, 1901, and on the 3d of March we had already passed the total for March 1901. This shows that as the people learn of the merits of Pneumatic goods they are quick to appreciate and buy them.

Pneumatic Mattress & Cushion Co.,
2 South St., New York City.

EDITOR'S CORNER.

A DISASTROUS LAW.

The New York Legislature has passed a law which permits game dealers to store game, under bond, and keep it through the close season. Every worker in the cause of game protection knows what this means. We all know that the average game dealer would just as soon swear to a lie as to the truth. I had one of them up in court 3 weeks ago, charged with having sold quails to 2 of my employees, on February 28th and March 1st of this year. My witnesses swore positively that they bought the game of this man; that they were absolutely certain as to his identity, and I produced the birds in court. In the face of all this testimony, the dealer deliberately swore he had not sold nor had a quail or a game bird of any kind in his store since December 31st, 1901; and this man is only one of his class.

I had a restaurant dealer arrested 2 years ago for selling and serving quails to myself and several friends. We took portions of the birds with us from the table, in each case, produced them in court, identified them ourselves as the remains of the birds we brought, and had them identified as quails by W. T. Hornaday. Then the accused restaurant dealer took the stand and swore he had not had in his possession, or served, a quail on his tables since the close of the season. He put 2 of his waiters on the stand, who swore they had not served any quails and had never known of any being served in that restaurant during close season, though they had worked there several years.

The police justice believed these men were lying, and held the accused to the criminal court. When the case was called there the dealer walked up to the bar, pleaded guilty and paid his fine. This is the kind of stuff New York game law violators are made of and this is the kind of men the new law is made for.

Under this cold storage law a game dealer may place in a cold storage house a barrel, said to contain 5 dozen quails, which may contain 50 dozen. He can take out 45 dozen in close season and sell them. At the opening of the next legal season for selling he can call in a State warden, open the barrel, show him the 5 dozen quails therein, and have his bond canceled. Dealers will devise many other ways of beating this law, just as they have been beating every law that has been enacted for the protection of game in the last 20 years.

This bill was evidently framed and passed primarily for the purpose of saving the Arctic Freezing Company from a certain disastrous penalty to which it subjected itself. It will be remembered that Game Warden Overton, of Long Island, went into this company's cold storage plant last spring, with a search warrant and seized about 55,000 pieces of game, held there illegally. The officers of the company were arrested, taken to court, gave bail and were released. Then Governor Odell appointed Black, Olcott, Gruber & Bonynge, attorneys for the State, to prosecute this company. I wrote the Governor and these attorneys several times, to know what was being done in the matter, and urging that the case be vigorously prosecuted. Some of these letters remain unanswered to this day. Others were answered to the effect that the case would come up and would be pushed in due time. Now, a law has been enacted to authorize just such traffic in game as these people were conducting, and it is a well known fact that no court or jury can ever be induced to convict a man for an offence committed under a law that has meantime been repealed.

So the grand work of Game Warden Overton goes for naught: and the Arctic Freezing Company, and the 50 or more dealers who owned the game placed in its charge and held illegally, will go free, instead of having to pay into the State treasury some hundreds of thousands of dollars, as they should have been compelled to do.

Governor Odell recommended in his annual message last fall that a law should be enacted that would allow the placing of game in cold storage, at the close of the legal season for selling. Senate bill 151 was evidently prepared under his supervision. It was fathered and pushed through both houses of the Legislature by the Governor and the State Fish and Game Commission, of which Lieutenant Governor Woodruff is president. This is the kind of men we have at Albany to protect New York fish and game.

There is another view to be taken of this whole subject of game traffic in New York. That is, that practically every pound of game that comes into this market, aside from water fowl, is stolen from the people of other States. All the States of the Union have laws prohibiting the shipment of game out of their limits, except Virginia, Kentucky, Mississippi, Louisiana and Montana. The first 4 of these States may possibly contribute a few quails and a few woodcock to the New York market; but not 5 per cent. of the quantity consumed here. New York itself does not produce any ruffed grouse, woodcock or quails for

the market; so that practically all these birds that are sold in New York are sent here from States that have laws prohibiting the export of game.

What about the tons of prairie chickens sold in New York? Not one of these birds can be legally shipped into this State, from any State in the Union where they exist. Consequently the game dealers of New York are carrying on a wholesale system of stealing from the people of neighboring States. Now the law-making power of the Empire State steps in and says to the game dealers, "We will protect you in holding your swag during the 10 months of the year when it would not be wise to offer it openly for sale." The Governor of New York originated this measure, and the Fish and Game Commission of New York pushed it through the Legislature.

What do the sportsmen of this State think of their Governor and of their Fish and Game Commission?

LODGE OF ELKS IN TROUBLE.

Certain members of the San Francisco Lodge of Elks have got themselves into a cold box. They asked the park commissioners for permission to kill one of the big bull elk in the Golden Gate park in order that they might hang its head in their lodge room as a trophy. After due consideration the park commissioners granted the request, and Mr. Ward, a member of the lodge, asked permission to kill the elk. This was also granted, and Mr. Ward marched valiantly up to the paddock in which the elk are enclosed, leveled his rifle at one of the big bulls and shot him down. Then he and Mr. Kohn, another member of the lodge, stood up behind the carcass of the fallen animal and had themselves photographed.

At this juncture Mr. A. T. Vogelsang, executive officer of the State Board of Fish and Game Commissioners, stepped in, seized the elk and placed it in cold storage. At last accounts he was planning legal proceedings against Mr. Ward for killing the elk. The killing was in direct violation of the State law which prohibits the killing of elk in California at any time or under any circumstances, and it is likely Mr. Ward will wish, before he gets through with this case, that he had not been so fresh.

It is high time the Order of Elks should change its method. The badge, or at least one of the badges, of this order is an elk tooth. As elk become more and more scarce in the country, the members of this order are offering higher and higher prices for elk teeth, thus stimulating the unprincipled market hunters of the West to pursue this noble animal and slaughter him wherever and whenever found.

The Colorado Springs Lodge of Elks passed a resolution some years ago condemning the wearing of elk teeth. This resolution was printed in the form of a circular, and sent to all the other lodges in the United States, but it seems to have had little effect. All the lodges of this excellent order should follow the example of the Colorado Springs Lodge, and renounce the wearing of elk teeth and the buying of elk heads to hang in lodge rooms.

Executive Agent Vogelsang is entitled to the gratitude of every sportsman and every naturalist in the United States for his prompt and valiant action in the case above recited, and it is earnestly hoped he may succeed in making Mr. Ward pay a heavy fine for his cold blooded slaughter of this noble animal. If the park commissioners of San Francisco had more elk than they needed in their park they could no doubt have sold some of them to other cities. If not, they could have given them away. There are plenty of cities and private individuals throughout the country always ready to take any surplus wild animals that may be held in domestication and provide proper homes for them. Mr. Vogelsang is a hero and should have a monument.

I printed in March RECREATION a report from a Chicago paper to the effect that the game market of that city had been practically destroyed by the enactment and enforcement of the non-export laws of all the Western States. There are but 5 States in the Union that have not enacted such laws. These are Virginia, Kentucky, Mississippi, Louisiana and Montana. As everyone knows, it is impossible for these States to furnish even one-tenth of the game that is handled and consumed in New York City alone. If, therefore, statesmen throughout the other States will take proper measures to see that their non-export laws are stringently enforced, the game market of New York City can be destroyed even as that of Chicago has been. Not only that, but the markets of Cincinnati, St. Louis, Philadelphia and Boston can be broken up. Why should not all sportsmen in the other 44 States get on the firing line and do their duty?

The Chicago Inter-Ocean reports that Jacob Beck, a farmer living near Aurora, Ill., recently saw a wolf near his barn. He went for his gun, but the wolf took to the woods. Then the farmer rang up several of his neighbors, asking them to turn out. They did so, and after an exciting chase the wolf, or at least a wolf, was killed. This is a new use for the telephone. We may next expect to hear of telephone lines being run into the forests of Maine, Canada, and

into the big game regions of the mountains. Then the luxury hunter can go into camp, make himself comfortable, provide a supply of reading matter and send his guide into the woods to locate his game. When an elk or a moose or a bear is found the guide can skip to the nearest telephone station, ring up his boss at camp, and tell him to come out and kill the game. Verily the 20th century is a hummer.

Governor Nash of Ohio has set a pace that the governors of all other States of the Union having any game to protect would do well to follow. He has reorganized his State Fish and Game Commission by accepting the resignation of 3 members thereof who knew little about game birds, animals or fishes, and who, therefore, cared little whether these creatures are protected or exterminated. Governor Nash has appointed in place of these men 3 practical sportsmen, who are supposed to be deeply interested in the cause of game and fish preservation. We may reasonably expect that there will be something doing in Ohio from this time forward in the way of looking after the interests of sportsmen.

The Hon. Alvin Evans, member of Congress from the 19th district of Pennsylvania, whose first term in Congress will expire in the near future, will probably be a candidate for reelection, and it should be a pleasure for every sportsman in his district to vote for him regardless of political lines. He is a member of the League, a firm friend of the cause of game protection and always votes on the right side of every measure that appears in Congress looking to the better protection of game in any part of the country. When we find a man of this character in any lawmaking body we should see to it that he is kept there as long as he wishes to stay.

Frank Burton, of West Sebois, Maine, killed a cow moose last fall and is now serving a 3 month's sentence in jail as a consequence. When Warden Pollard arrested him Burton threatened to kill any man who might testify against him, but fortunately some of his neighbors were found who knew the circumstances and who had nerve enough to go into court and tell the truth, notwithstanding his threat. When Burton's term of imprisonment expires he should be put under heavy bonds to keep the peace or should be compelled to leave the State.

Mr. Charles Schubert, manager of Hotel Interlaken, on Beaver lake, Wisconsin, was arrested in February last on a charge of hunting rabbits with a ferret and was fined $20. It would be cheaper for Schubert when he finds a rabbit burrow in future to sit down near it, wait until the rabbit comes out, sprinkle some salt on its tail, and catch it in his hands. He may not get so many rabbits in a day, but he would have more money at the end of the week.

Augustus Violette was convicted of the killing of a cow moose at Grand Falls, N. B., in November last and fined $100. In default of payment he was sent to jail, where he probably had to live on bread and water with an occasional lump of corned beef or pork. Hereafter Gus will probably obey the laws and thus be able to feed at his own trough, even if he doesn't have moose meat at all seasons of the year.

The Hon. J. P. Elkin, Attorney General of the State of Pennsylvania, is a candidate for the office of governor. He is a League member and a firm friend of game protection. If elected to the higher position he would undoubtedly look well to the enforcement of game laws. RECREATION, therefore, bespeaks for him the support of all Pennsylvania sportsmen regardless of party lines.

Charles Payne, the wild animal man of Wichita, Kan., has a new way of shipping wild ducks. His brother Frank has become a breeder and flyer of homing pigeons; and some of his birds have been doing remarkably long distance flying. The plan is this: He makes little string halters, hitches a lot of ducks to a pair of homers, and starts 'em out. The pigeons forthwith lead the ducks home.

I am almost daily in receipt of inquiries as to where live quails can be had for restocking. If any of the readers of RECREATION, living in States which do not prohibit the export of quails, know where, in such States, live birds can be bought, I should be glad to have names and addresses.

About a year ago a friend sent me a story of a kingfisher that made its winter home near his house and fished in a neighboring brook, perching on the telegraph wire between shots. I have forgotten the name of he writer. Will he kindly write me?

"Lyons!" shouted the trainman of the N. Y. C. express.

"Heavens!" exclaimed the unsophisticated Englishman, to his companion, "and neither of us has any guns."

Ask your Doctor

about the good of beer.

He will confirm what we tell you—

That barley-malt is a half-digested food, as good as food can be.

That hops are an excellent tonic.

That the little alchohol in beer—only 3½%—is an aid to digestion.

That he prescribes beer for the weak.

But Purity is Essential

But he will tell you that beer, being a saccharine product, must be protected from germs, and must be brewed in absolute cleanliness.

That it should be cooled in filtered air.

That the beer itself should be filtered.

And, as an extreme precaution, every bottle should be sterilized.

He'll say, too, that age is important, for age brings perfect fermentation. Without it, beer ferments on the stomach, causing biliousness.

When he tells you that, he has practically prescribed Schlitz.

Schlitz beer is brewed with all these precautions. It is the recognized standard all the world over, because of its purity.

Ask for the brewery bottling.

This Revolutionizes Photography

The Magazine of the Snappa Makes it the Marvel Camera of the Age

Snappa Camera is the most recent development of photographic science. An instrument so compact and complete; so efficient in every use; so marvelous in its mechanical perfection as to entirely revolutionize the making of pictures.

Snappa magazine carries 12 plates or 24 films, which change automatically with a motion of the hand. You always have a fresh plate or film ready for instant use.

It is impossible to make two exposures on one plate; you can develop each exposure separately and to the best advantage—the only way to make perfect pictures.

Snappa camera is not only the fastest camera, but it is also the most accurate, taking pictures with a rapidity and precision heretofore unknown in snap shot work.

Everybody should know all about it—whether you have a camera or not—you should know the advantages of this great invention. It is a revelation—an education in the possibilities of photography.

Ask to see it at the dealers, or send for descriptive book.

ROCHESTER OPTICAL & CAMERA CO.
119 South Street, Rochester, New York

AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

7th ANNUAL COMPETITION.

RECREATION has conducted 6 amateur photographic competitions, all of which have been eminently successful. The 7th opened April 1st, 1902, and will close November 30th, 1902.

Following is a list of prizes to be awarded:

First prize: A Long Focus Korona Camera 5 x 7, made by the Gundlach Optical Co., Rochester, N. Y., fitted with a Turner-Reich Anastigmat Lens, and listed at $85.

Second prize: A No. 3 Folding Pocket Kodak, made by the Eastman Kodak Co., Rochester, N. Y., fitted with a Bausch & Lomb Lens Plastigmat Unicum Shutter, and listed at $61.50.

Third prize: An Al-Vista-Panoramic Camera, made by the Multiscope and Film Co., Burlington, Wis., and listed at $40.

Fourth prize: A Wizard C Camera, 4 x 5, made by the Manhattan Optical Co. Cresskill, N. J., with B. & L. Iris Diaphragm and Leather Carrying Case; listed at $33.

Fifth prize: A Waterproof Wall Tent, 12 x 16, made by D. T. Abercrombie & Co., New York, and Listed at $32.

Sixth prize: A Gold Hunting Case Watch; listed at $50.

Seventh prize: A Tourist Hawkeye Camera, 4 x 5, and made by the Blair Camera Co., Rochester, N. Y., and listed at $15.

Eighth prize: A Bristol Steel Fishing Rod, made by the Horton Mfg. Co., Bristol Conn., and listed at $6.

The 10 next best pictures will each be awarded one dozen 8 x 10 Carbutt Plates, made by the Carbutt Dry Plate Co., Wayne Junction, Philadelphia, Pa.

The 10 next best pictures will each be awarded one dozen 5 x 7 Carbutt Plates.

The 10 next best pictures will each be awarded one dozen 4 x 5 Carbutt Plates.

A special prize: A Goerz Binocular Field Glass, listed at $74.25, will be given for the best picture of a live wild animal.

Subjects are limited to wild animals, birds, fishes, camp scenes, and to figures or groups of persons, or animals, representing in a truthful manner shooting, fishing, amateur photography, bicycling, sailing or other form of outdoor or indoor sport or recreation. Awards to be made by 3 judges, none of whom shall be competitors.

Conditions: Contestants must submit 2 mounted prints, either silver, bromide, platinum or carbon, of each subject, which, as well as the negative, shall become the property of RECREATION. Negatives not to be sent unless called for.

In submitting pictures, please write simply your full name and address on the back of each, and number such prints as you may send, 1, 2, 3, etc. Then in a letter addressed Photographic Editor, RECREATION, say, for instance:

No. 1 is entitled —— ——.
Made with a —— —— camera.
—— —— lens.
On a —— —— plate.
Printed on —— —— paper.
Length of exposure, —— ——.

Then add any further information you may deem of interest to the judges, or to other amateur photographers. Same as to Nos. 2, 3, etc.

This is necessary in order to save postage. In all cases where more than the name and address of the sender and serial number of picture are written on the back of prints I am required to pay letter postage here. I have paid as high as $2.50 on a single package of a dozen pictures, in addition to that prepaid by the sender, on account of too much writing on the prints.

Any number of subjects may be submitted.

Pictures that may have been published elsewhere, or that may have been entered in any other competition, not available. No entry fee charged.

Don't let people who pose for you look at the camera. Occupy them in some other way. Many otherwise fine pictures have failed to win in the former competitions because the makers did not heed this warning.

PRINTING AT NIGHT.

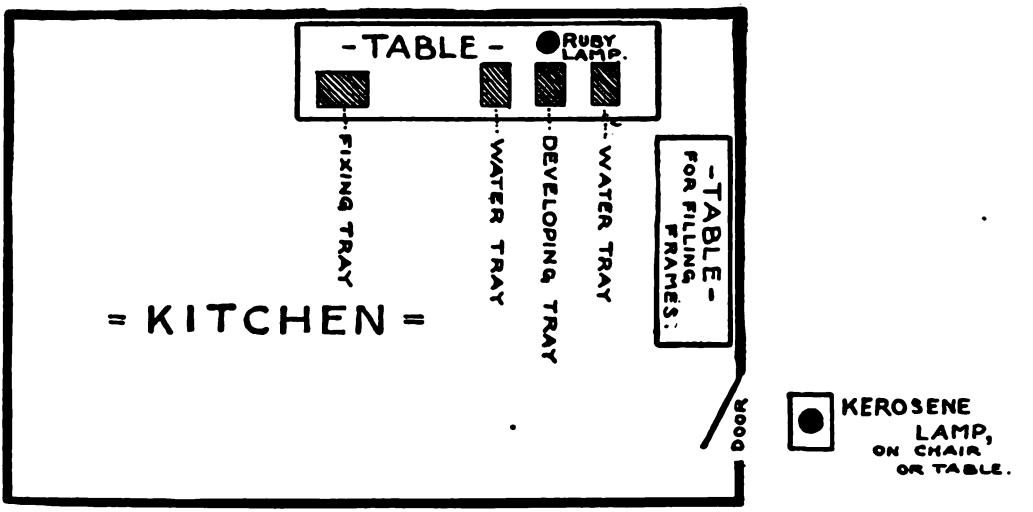
Fulton, Ill.

Editor RECREATION:

Probably many amateurs, like myself, enjoy photography, but have little available time during the day, and must do their work, if at all, at night. I have been so situated for years, and have had much satisfaction from the use of bromide paper. This paper is made by several firms, and may be had in a variety of surfaces and weights. In working and results it differs from other developing papers only in sensitiveness. It gives beautiful and permanent results in black and white, and is easier to work and get good results from than any of the printing-out, or sun-printing papers. Velox, Dekko and Cyko developing papers are good, but they will not do for the man who must print at night, with nothing stronger than a kerosene lamp.

For the all around purposes of the average amateur, I recommend Eastman's platino bromide, A, hard. As I have no regular dark room, I use any convenient room, generally the kitchen. For convenience in printing and developing I arrange things as shown on diagram following.

Being extremely sensitive, the bromide must be handled by ruby or yellow light. I use one table for filling the printing frame and another for developing.



Print by exposing the frame to the light of a lamp which is placed in a chair just outside the kitchen door, in the next room; perhaps a closet or pantry. Keep the paper on the table covered from light when opening the door to print. With a No. 1 burner an average negative will print in about 10 seconds, at a distance of 3 feet. Find the proper exposure by testing with small slips of paper.

The operations of developing and fixing are the same as for any other developing paper, except that developer should be ½ as strong as developer for Velox, etc. Slide the print into clean water, face up, to avoid air bubbles. Then transfer to developer. Rock, or keep turning the print to make development even. The image should come up slowly, clear and brilliant. Stop it when it has reached the right point by rinsing an instant in another tray of clear water, and then put in an acid fixing bath. Fix 15 minutes or longer, wash thoroughly, and mount same as any print. The developer may be used repeatedly, till worn out. If exposed right, a print will develop in about a minute

M. Q. developer is my favorite, and may he bought ready for use, or better and cheaper, make it yourself. Here is the formula:

Water	10 ounces.
Hydrochinon	30 grains.
Metol	7 grains.
Sulphite soda, crystal	½ ounce.

Carbonate soda, crystal, 400 grains, or 200 grains granular.

10 per cent. solution bromide potassium, about 10 drops.

For use with bromide paper, or plates, dilute with equal bulk water.

Acid fixing bath, for bromide paper:

Hypo	4 ounces.
Water	16 ounces.

When dissolved add:

Water	3 ounces.
Acetic acid	¾ ounce.
Alum	⅛ ounce.
Sulphite soda	⅛ ounce.

These are Velox formulas.

The directions that come with bromide papers generally recommend an iron-oxalate developer. M. Q. is much simpler and cheaper and gives as good results, with no Congress from that State in November, danger of yellow stains.

G. W. Damon.

MOONLIGHT PHOTOGRAPHY.

Pictures photographed by the light of the moon have the merits of truth, sweet softness and scarcity. They are not to be confounded with pictures taken by daylight toward the sun and printed too deep. Those fake moonlights are striking and effective, but they are wholly devoid of truth.

One of the best pictures I ever made was a view of a church rectory and graveyard. with the soft light of a full moon playing on the dark stone work and the large church windows. I used the 100 foot mark on the scale, a rapid rectilinear lens at f 22, and allowed 20 minutes with an instantaneous iso plate. I exposed another plate, so anxious was I to secure the view, and fearing undertime I gave the next half an hour. Both developed readily and I am of the opinion that the 20 minute one is the best, though both are good. The result, called "Quiet-

ude," is the most admired picture I ever made.

I have found by experiment that by full moon with the plate named, which is very sensitive to yellow light, and f 22 I can get these pictures every time. I print in platinum and generally dip the print in weak bluing after developing and washing. W. P. Oxford, in the Photo-American.

SNAP SHOTS.

What causes transparent spots on my negatives after developing? Can I get an extra bellows made to fit in the back of a Korona Series 1, to slip in where ground glass is? Have any readers of RECREATION any negatives of the Pan-American for sale; 4 x 5 preferred.

Jos. B. D., Allegheny, Pa.

ANSWER.

Bubbles cause transparent spots on negatives. If you keep a tuft of cotton in the tray with the developer and rub the photo gently with it soon after it is wet you will do better. Use fresh cotton each day, of course. A smart rap or 2 on the end of the tray while developing is also good.

Gundlach Optical Company, Rochester, N. Y., can tell you about bellows for their Korona cameras. You can obtain prints of all the exterior views of the Pan-American Exposition, with clouds in all, from E. W. Newcomb, Bible House, New York; 25 cents each, unmounted, or for less price in quantity.—EDITOR.

Have you a formula for printing and toning on silk?

E. N. Stephenson, Moline, Ill.

ANSWER.

Wash the silk in warm water. Float on following bath 2 minutes:

Salt	10 grains
Water	1 ounce
Ammonia	15 drops

Hang up to dry. Sensitize by floating on following bath:

Silver nitrate	150 grains
Water	1 ounce

Dry and mark through back. Print deep and tone in any good toning bath, say water, 8 ounces; gold, 1 grain, in 1 ounce water, to which add 5 to 8 grains of bicarbonate of soda.

Fix in hypo soda 1 ounce, water 8 ounces. Wash well and dry.—EDITOR.

Can you, or any of your readers, tell me how to obtain a good negative from a moonlight exposure? I am most anxious to get a good moonlight print, and should like to know what exposure and diaphragm to use in order to obtain the best result.

Arthur L. Owen, Keating Summit, Pa.

ANSWER.

When the moon is full, you can take a good picture of a light object with your lens at full opening in about 10 minutes. If you stop down to 16, you would better give 20 minutes. This will fully time white houses or other light subjects. Increase according to darkness of subject as necessary. A dark colored house should have full illumination at 10 p. m. and an exposure of nearly an hour on an iso plate. Let the lights in the house be lighted about 5 minutes, then turned out if you wish the windows to show.—EDITOR.

The following formula has been used successfully for the preparation of a photographic basis on ivory for miniature painting.

Silver nitrate	3 parts.
Uranium nitrate	30 "
Alcohol (Atwood's patent)	100 "
Water	10 "

Make up this solution and apply to the ivory with a soft brush. Dry the sensitized surface so prepared in the dark and afterward print by contact in daylight. Fix the picture printed by immersing in water acidulated with nitric acid. Rinse in clean water and dry.

It is essential that the surface of the ivory be absolutely clean; the least trace of grease or moisture will cause patchy prints.—Professional and Amateur Photographer.

I am glad to see in March RECREATION that brother Murray is interested in forming a RECREATION camera club. I hope we can get this good work started. It will be of interest to all who are lovers of photography and of RECREATION. The photo department of RECREATION is of great benefit to amateurs. I have learned more from it than from photographic periodicals, of which I read many. I am in favor of forming a club of readers of RECREATION, to be known as RECREATION Camera Club, and suggest that each member give a small fee, to help the good work along. Some day let us have a convention. I hope other readers of RECREATION will give their ideas and suggestions in future issues of the magazine and that we may soon organize the club.

O. H. Hill, Colorado Springs, Colo.

After many experiments and failures, I have come to the conclusion that the best outfit is the plates, pyro developer, Dekko and Dekko developer put up by the Eastman people, which makes 4 ounces of de-

veloper and costs 5 cents. Every amateur should have a set of Manning's masks, worth 25 cents. There are about 15 in the package, varying in shape from a square to a heart. By the use of these masks a picture is improved 100 per cent., and it is not necessary to trim prints after using these masks. They save much time and paper. The result is, the atmosphere around you is not quite so blue, and your chance of meeting your friends on that beautiful shore has not decreased.

P. R. Finlayson, Secamous, B. C.

Will you please advise through RECREATION if formaldehyde will prevent frilling? If so, how should it be used and where can it be obtained?

S. E. Taylor, Morgantown, W. Va.

ANSWER.

Formaldehyde will not prevent frilling to any extent. Ice is the only thing for that; but formaldehyde will make your film insoluble and prevent melting. It will also toughen the film. You can buy it of any druggist who carries a fair stock. Get full strength and add one ounce of it to 9 ounces of water. Of this, use 2 drams in a pint of water and drop plate in when it needs it.—EDITOR.

Last winter I had several bottles of toning and fixing solution and developing solution which froze in the bottles. Would the solution have been all right if I had thawed them out?

Frank Liebig, Belton, Mont.

ANSWER.

I have had numerous inquiries similar to yours and to satisfy myself I have frozen a number of photographic preparations, have let them thaw gradually, and have then tried them. In no case has there seemed to be any deterioration. Do not use the thawed chemicals till they are of a comfortable temperature. Cold solutions work slowly and give strong contrasts.—EDITOR.

Please tell me how to prevent films from curling after they are dry. Can they be stiffened to stay flat?

J. Schants, Woodhaven, N. Y.

ANSWER.

After developing, fixing and washing your film, soak it 5 minutes in a solution of ½ ounce glycerine in 15 ounces of water. From this glycerine bath pin your films up at once on soft pine boards, using a pair of pins at least every 8 inches if you pin up the whole strip at once. Then keep your films between 2 cards, with a rubber band around them, and they will always stay flat.—EDITOR.

Please give me a formula for making chloride of gold from old gold.

E. F. P., Colmesneil, Tex.

ANSWER.

Chloride of gold is made by dissolving pure unalloyed gold in aqua regia by gentle heat, evaporating, drying and redissolving in water if wanted for toning. When buying the gold at an assay office the chemist will tell you exactly how much aqua regia to buy for the amount of gold you get. The process of making the chloride is not pleasant unless the dissolving can be done in a well-ventilated room, as the fumes given off are choking.—EDITOR.

Will you please state formula for the developer you consider the best for general use? Also kindly state reasons why it is best.

D. C. McRae, Greenwood, B. C.

ANSWER.

I consider the pyro developing formula given by the maker of the plates you use the best, for the reason that the maker knows his plates better than anybody else, and gives, free, a formula that his chemist finds to produce the best results. All buyers of plates should use just what the maker recommends, or never kick at the plates.—EDITOR.

Will you kindly inform me through RECREATION if there is such a thing as a folding dark-room lamp? If so, where can I buy one?

John S. Miller, Jr., Chicago, Ill.

ANSWER.

There are many. The nearest places to you are Burke & James, 118 West Jackson boulevard; Almer Coe, 74 State street; or Ralph Golsen, 72 Wabash avenue. These lamps cost about 75 cents, and use a candle.—EDITOR.

To avoid blistering of albumen paper:

Do not dry the paper by excessive heat.

Avoid acidity in solutions.

Moisten the print, before washing, with a sponge saturated in alcohol.

Immerse the print, before fixing, in a weak alum.

Add a trace of aqua ammonia to the fixing bath.

Add 1-10 part of alcohol to the ordinary toning bath.—The News Monger.

Will you tell me what makes platino tints blister?

Chas. H. Stortz, Racine, Wis.

ANSWER.

If you will keep all the solutions the paper has to go through at the same temperature you will probably never have trouble with blisters. Changes from cold to warm or *vice versa* cause them. EDITOR.

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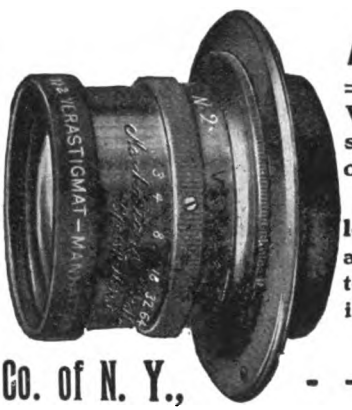

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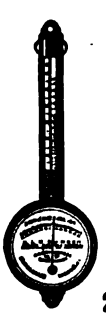

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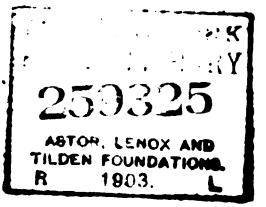

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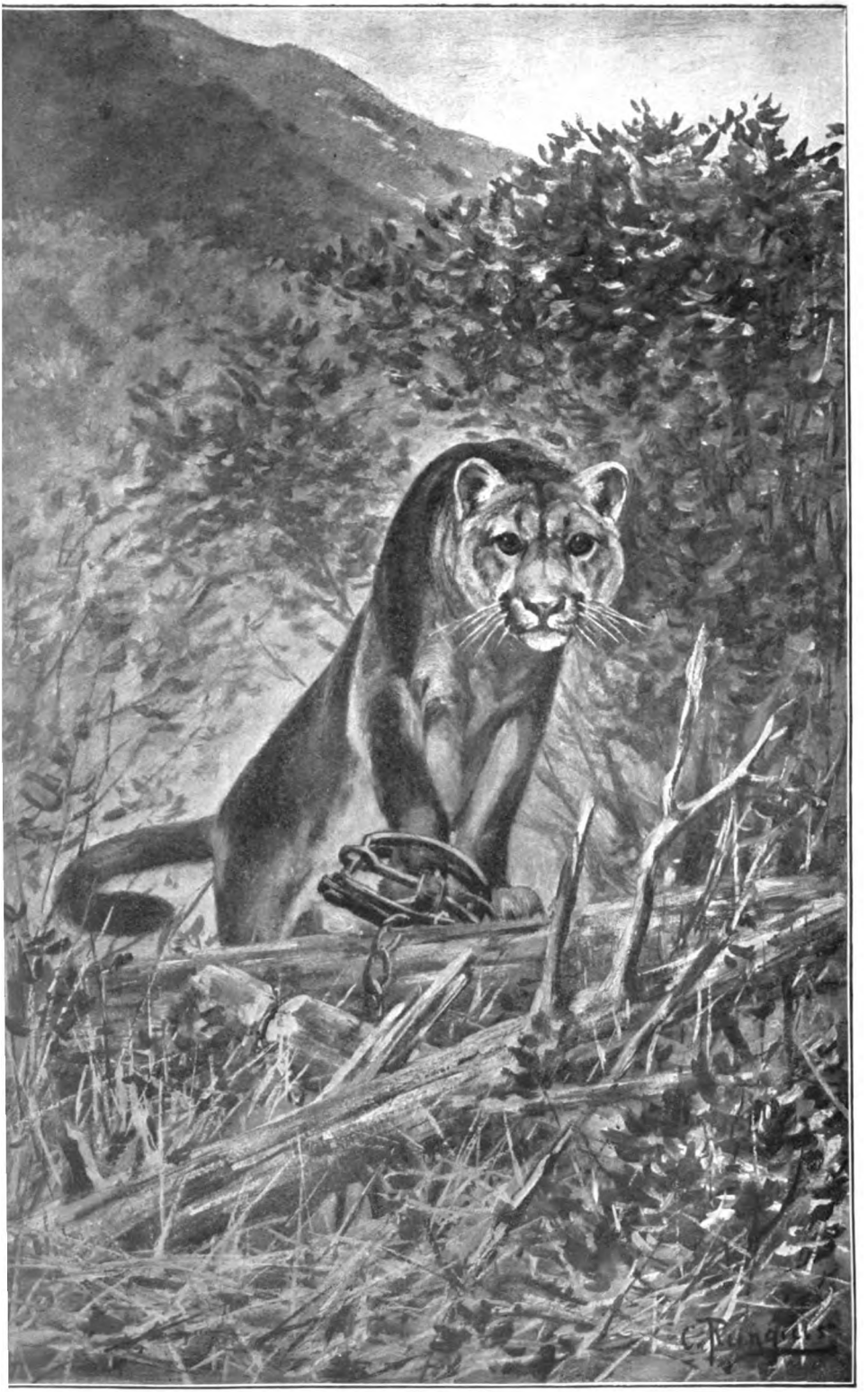


STANDING ON AN OLD PINE LOG, ONE FOOT IN THE TRAP, HE GLARED AT ME.

RECREATION

Volume XVII. JULY, 1902. Number 1.

G. O. SHIELDS (COQUINA), Editor and Manager

TRAPPING A MOUNTAIN LION.

CHAS. A. FRIEDEL.

In Southern Colorado, a branch of the Purgatory river known as the North Fork has its source high up in the Sangre De Christa range of mountains. Along this stream and several of its small branches, I was prospecting for gold.

One day, as I was returning down the mountain to my camp, 3 deer suddenly sprang from out the brush, dashed across the path in front of me, and bounded up the side of the mountain. For a second or so I was at a loss what to do, and could but stand and admire their graceful movements. After going 200 yards they separated, the doe and the fawn going to the right, while the other, a large buck, came to a stand beyond a boulder, with only his head visible above its top.

Though not in urgent need of venison, the temptation to see if I could hit the buck's head at that distance was so great I could not resist it. I raised my rifle, made a slight allowance for the drop of the bullet, and pressed the trigger with a "don't care if I do miss" sort of a pull. The bullet entered the deer's head below the ear, killing him almost instantly.

The rock was 10 feet across at the base and about 5 feet high, with a flat top. The side on which the deer lay was sloping, and the sun being almost down, I thought I could do no better than to draw the deer up on the rock and leave him there until morning. That, with some difficulty, I did; then, rapidly descending, I soon reached the trail at the bottom of the canyon and in about an hour arrived at camp.

Early the next morning I was up, and after a hearty breakfast I buckled the pack saddle on one of my best burros and returned to the rock to get my deer. Arriving there, I found someone had been before me and had carried, or rather dragged, him away. The thief had been unable to shoulder the carcass, and a broad trail lay before me, down the mountain. This I followed, but found nothing by which I could identify the robber until I came near the creek. He had pulled the deer while walking backward, and in that way had covered his own tracks. Near the creek, however, he had met an obstacle in the shape of a fallen pine. There, it appeared, he had a great deal of trouble, and in his efforts to get the deer over the log he had left his own footprints. The thief was a large mountain lion.

The creek being but a few yards away, I began to be on my guard. I was certain he had not been able to draw the carcass across the stream. Pushing through the thick underbrush and aspen trees that lined the stream, I came on the remains of my deer. The lion had feasted to his heart's content. After devouring all of one hind quarter, and part of the back, he had covered the remainder with some sticks and leaves. Being well acquainted with the habits of the beast, I was sure he would return to renew his repast. I therefore made preparations for his capture.

After removing the hide, I cut up the best portion of what meat was left and tied it up in the skin. Then, making a hole in one of the deer's

ears, I passed a piece of buckskin through it and hung the head on a limb of a sapling. Some 2 miles above my camp, on Whisky creek, was a bear trail, and near that trail a large steel bear trap, 42 pounds in weight, had been set 2 or 3 nights previously for a large cinnamon bear. He had, however, failed to accept the invitation.

I took this trap up and carried it to the place where the lion had had his royal feast the night before. Removing the deer's head from the limb, I fastened it securely to the butt of a small aspen tree. Then I cut down a tree from which I made a clog about 8 feet long and 6 inches in diameter at the large end. I put the ring of the trap chain on this clog and fastened it with a wedge. Then I dug up the earth near the deer head until I had a hole about 4 inches deep and about the size and shape of the trap. In that hole I placed the big trap, after setting it, and covered it with earth and leaves.

I was up and on my way to the trap early the next morning. The shadows cast by those lofty mountains among which my camp was placed had not as yet been dispelled by the rising sun, although higher up, on the Sangre De Christa range, vast piles of snow were glistening in his rays. As I neared the place where the trap was set, I became anxious to see what my luck had been. After I had penetrated the thick undergrowth, to within 50 feet of the spot, I found I had made a capture. The aspen trees near where the trap had been set had the bark torn off. The marks of teeth and claws on other trees and the trampled earth bore evidence there had been a fierce battle between the beast and the big trap.

Stealing softly forward, I soon discovered the lion. Standing on an old pine log, one foot in the great trap, he glared at me, silent and grim. He made no motion except with his tail, which he lashed furiously. His head was in a line with his body as he stood directly facing me. Not wishing to make any bullet holes in his skin, I moved forward and began to circle around him. He made no effort to change the position of his body, but followed me with his intense gaze until I had made almost a half circle. His head then being out of line with his body, my chance to fire had come. This I did with careful aim, just above and between those glowing eyes.

As the report of the rifle rang through the canyon, the head of the beast sank down and his body fell sideways off the log. Reloading my rifle, I stepped quickly forward, but life was extinct before I reached him.

He was in the parlor of a St. Louis residence while his fiancee was playing a Chopin sonata on the piano. Her mother was seated almost opposite her future son-in-law, and when the proper opportunity presented itself she said:

"Don't you think Edna has a great ear for music?"

"I certainly do," replied the young man. "If you'd stretch a few strings across it it would make a lovely guitar"—

But he never finished his sentence.—N. Y. Herald.

WILD GOAT SHOOTING ON THE DESERTAS.

LAURENCE MOTT.

The yacht was lying off the town of Funchal, Madeira. We were only to stay 2 days, as we were homeward bound and in a hurry to get to New York; but as I had received a tempting invitation from the owner of the Desertas islands, which lie 20 miles to the Westward from Funchal, to shoot over them, I decided to take the 2 days and go over to the islands after wild goats. Leaving the yacht one morning at 1 o'clock, i. the cutter, we sailed across and reached our destination at 7 o'clock. I say we because I took 2 sailors with me, besides a Portuguese, whom the owner of the islands recommended as a good guide. We tumbled our stuff ashore and while the men got a fire going for breakfast I took the glasses and climbed up 100 feet or so on the cliffs to get a look about. It was the most desolate sight I ever saw; no vegetation of any kind, except here and there a few patches of moss. Nothing but rocks and cliffs towering some 2,000 feet from the water's edge. I could see no possible chance of getting to the top, as the cliffs seemed perpendicular everywhere.

After breakfast we made everything fast in case there should be a blow while we were gone, and started. I had never done any high climbing, and the altitudes bothered me. In some places we edged along goat paths not 4 feet wide with the cliff on one side and a sheer drop of 1,000 or 1,500 feet on the other. Two or 3 times on the way up we saw goats, but they either were too far off to attempt even stalking, or they saw us just about the time we saw them, and disappeared. It took us 2½ hours to reach the top, and I was nearly exhausted when we got there.

"Francisco," I said, "where are the goats?"

"Find some plent' quick now," the guide answered; so we trudged on, sneaking from rock to rock and crawling on our hands and knees whenever we came to a turn in the path, lest there should be goats on the other side. The native method of hunting is primitive and tiresome. They creep along for hours sometimes, and when they see a goat they hide themselves comfortably, trusting to luck that the animal will come toward them. The goats are very wild and "light out" at the slightest movement or noise on the part of the hunter.

We had been dragging ourselves slowly along for an hour when the guide, who was ahead, suddenly dropped flat. I quickly followed his example and awaited further developments. In a few moments he motioned to me carefully, and I wriggled along the ledge till I got to him. Following the direction of his eyes I saw on the edge of a cliff, some 250 yards away and fairly well above us, 4 goats. With the glasses I could see that one of them was a large buck with a fine pair of horns. They were nibbling some bits of moss and had not discovered us. I got my Winchester 30-40 carefully in position and waited for a favorable opportunity. At last the "bigga one," as Francisco called him, stepped to the edge of the cliff, as though trying to get a better view of our position. I thought that my best chance and let him have it, taking sight at his shoulder as nearly as I could make it. When I fired the buck jumped forward and fell clear of the ledge. Down he went, turning over and over in the air.

"Buono, buono!" ejaculated the guide; "me get."

Before I could say a word he was over the edge of the path we were lying on and was going down the cliff at a break-neck pace. I thought surely he would kill himself, as one misstep would have plunged him about 1,600 feet into the water; but in another hour I heard a faint shout, and looking over the edge I saw him standing by the body of the goat.

While I waited for him to get back I took the glasses, and leaving my rifle on the ledge I climbed up to a pinnacle about 150 feet above me. From there I commanded a much more extensive view, and to my delight I discovered a bunch of 6 goats around in the next chasm but one. They were evidently out of hearing of the shot, as they were all lying down in the warm sunlight. I hurriedly scrambled back to the ledge where I had left my rifle, and leaving my pipe and tobacco pouch there to show Francisco I would be back, I started. It was nervous work, all alone, but in 2 hours I was within 300 yards of the bunch. I could get no nearer, as there was no way but a narrow ledge and that was in full sight of the goats. For half an hour I waited, hoping they would move up to the ledge where I could get a shot. Finally they got up hurriedly and started along the path they were on, but away from me, so I fired at the largest buck and missed. The bullet struck close, and the brute must have heard it whistle, as it covered him with sand and dirt. They all disappeared like a flash, and I was cursing my poor marksmanship when something mov-

ing caught my eye below me, and there were the whole 6 going like the mischief along a path about 150 yards away. They must have got down out of my sight and then started back again on that trail.

I threw up my rifle and holding a trifle ahead of the buck which was in the lead, I let him have it. He stumbled, fell and began kicking vigorously. The rest of the animals hesitated a moment then jumped over their fallen leader and went on with redoubled speed. I got down to the wounded goat just in time to prevent his kicking himself over the ledge. Getting my hunting knife in his throat was quite a job, as the ledge was not wide and I did not fancy going down the great height into the sea. I got a rock as big as I could lift and managed to throw it on the goat, which kept him quiet long enough for me to finish him. Cutting off the head and the skin well down on the shoulders, for mounting purposes, I tied it on my back by some handkerchiefs, and began my return trip.

Francisco was calmly smoking my pipe when I got back to him and to my surprise there was the whole body of a goat at his feet.

"Ha! Ha!" he said, "you gooda one! Get all 'lone! buono, buono!"

We compared the 2 heads and found that the last one I had shot was a trifle the larger. These goats are not very large, weighing possibly 50 to 70 pounds. They are dark in color, have heavy, long hair and excellent horns, being somewhat like the chamois in shape, but much heavier and longer.

It was getting late and it was as cold as winter up on the plateau, so we fastened on our game and began the trip to camp. We got there in 2 hours and after supper turned in. Our beds consisted of 2 thicknesses of blanket between the rock and our bodies and the same quantity over us, but it felt like down to me. I never knew anything more comfortable.

The next morning at 6 o'clock we loaded the cutter and set sail for Funchal. It was blowing hard, but as the wind was well abaft the beam the seas did not bother us much. When we got about half way across we saw the yacht coming out to pick us up, which she did in a short time.

AMATEUR PHOTO BY CLINTON A. SMITH.

OWLETS.

Winner of 36th Prize in RECREATION's 6th Annual Photo Competition.

ON THE NEZ PERCES TRAIL.

WESTLEY JONES.

Photos by the Author.

An article recently published in RECREATION, "Hunting for a Place to Hunt," by H. H. Todd, in which the author relates some of the experiences of himself and party in Central Idaho in 1899, was particularly interesting to me and has prompted me to tell the story of a recent trip over the Nez Perces trail, in the expectation that it may be of interest and value to some of the many readers of RECREATION.

PACK TRAIN.

Mr. Francis E. Young, of San Francisco, and I, *en route* to Concord, Buffalo Hump, Idaho, to inspect some mining properties in which we are interested, met and made the acquaintance of Messrs. Todd and Moses soon after leaving Chicago, and made the railroad, steamer and stage journey with them to great and growing Grangeville, where we were all put up at the Jersey House, of which the genial George K. Reed is proprietor. Mr. Young and I started for the Hump, driving to Adams camp and leading our saddle animals. We halted at White Bird to feed the horses and take our lunch, and were engaged in that pleasant task when the wind storm mentioned by Mr. Todd in his article swept over that section with the suddenness, swiftness and destructive power of a cyclone. The section is heavily timbered with pine, and the trees, large and small, were lashed, twisted, smashed and mowed down by the score. Like most sudden and violent atmospheric disturbances, this one was of short duration, and the weather soon became calm and clear again. Not so the Florence road, across which many trees had fallen which had to be cut out before we could proceed. Had we been on the road when the storm struck, instead of lunching at White Bird, we could scarcely have escaped destruction by the falling trees.

We reached Adams camp that evening, and the next morning, well mounted, we

hit the Gospel Mountain trail to the Hump. The distance is a little less than 25 miles, and the greatest elevation about 8,000 feet. The trail? Well, many better mountain men than we had been over it, but it snowed all day, and that doubled the difficulties and halved the pleasures of the trip, as most of the magnificent views were shut out by the storm clouds.

We reached Concord about 9 o'clock in the evening, having been on the trail somewhat more than 12 hours. When within a half mile of Concord, we narrowly escaped being blown from the trail into the canyon below by blasts which were fired almost in our faces. At that time our company was operating a pack train of about 25 head between Adams camp and Concord, and employing some 40 men in the various operations of mining, building, developing town site, etc. Just previous to our arrival the first grave was opened on our property in Concord to receive the body of the unfortunate victim of a quarrel which terminated fatally. James P. Turner had passed the previous winter in Concord and reported 18 feet of snow. The small log structure in the foreground of the accompanying picture was his only shelter and was the first house built at Buffalo Hump.

So much has been written within the last few years *in re* Central Idaho, and especially the Hump and adjacent country, touching on the vital points of physical and climatic conditions, mineral resources, development, etc., that little remains to be added until new history is made, and it is making fast at the present time. The railroad from Lewiston to Stites has cut off about 60 miles of the stage ride over Camas prairie to Grangeville, and a passable wagon road has succeeded the Gospel Mountain trail. Thunder mountain is now attracting much attention, and it is expected that the tide of travel will soon set strongly that way.

Finishing our business at Concord, we returned to Grangeville and thence back to Boston. I decided that in the following year I would approach the Hump from the East, leave the railroad at a point in Montana and travel West over the Nez Perces trail to Elk City. Arrangements were made accordingly, and Monday, September 3, I left the cars at Monida, Montana. There I found James Blair, with whom I had previously made several similar trips, and his 2 assistants, John Bray and Joe Kemp, ready for me. Blair's outfit, 22 head of horses, of which 14 were pack, 6 were saddle animals and 2 were young colts, was the handsomest and best I have ever seen. He raises, breaks and trains his animals himself. As a hunter, trailer or packer, Mr. Blair probably has no superior in his section of the country. He is efficient, fearless and tireless when on the trail. Our supplies, selected and shipped from Boston, were on hand, the packs were accurately weighed and prepared for the horses, and Wednesday morning, September 5, with an outfit as complete and perfect as careful thought directed by the knowledge of long experience could assemble, we started on our long journey of nearly 500 miles to Buffalo Hump. James Blair lead the way, and he was leading in his own bold, fearless way when we entered Elk City, Idaho, 24 days later.

Our course was via Big Sheep Creek basin, Horse prairie, Bloody Dick creek, Big Hole, Moose creek, Trail creek, Ross Forks to Darby, thence via Nez Perces trail to Elk City. None of us had been over the ground before; the trail was difficult, even dangerous, and in places blind and impassable until with axes we cut our way through fallen timber. We were late in the season in starting and encountered snows and severe cold. Feed for the horses was scarce and on more than one occasion lacking, and horses will travel a long way after being turned loose, looking for feed. Water is to be found only at long intervals, and the camp at night must be timed to water and grass. Here is a mountain wilderness of pine, an ocean of tree tops nearly 150 miles in extent East and West, with little water, few, if any, mountain meadows, so common in other sections, and no game of account, large or small. We saw a solitary mule deer and half a dozen fool hens. Nothing else. We found none of the usual tracks or signs of game along the trail or about the watering and feeding places. We met two Flathead hunting parties whose camps looked rather lean. They were having poor success.

The first day out from Monida, when near Lima, we narrowly escaped disaster. The road on which we were then traveling makes through a narrow defile with perpendicular walls on either side. Ahead it narrows to a mere pass, through which comes a spur of the railroad. Half way between us and the pass a large drove of cattle were feeding, many of them standing on the tracks. We were giving them all the room we could, when through the pass came a freight train, up grade, with ringing bell, screeching whistle and clouds of black smoke hanging low and blowing straight toward us. It is impossible to describe just what followed, I was so busy with that part which particularly interested me, namely, an endeavor to save my own neck. There was a flying wedge of bellowing cattle and a wild dash of stampeded horses, snorting and bucking. The bell, the whistle, the rush of the animals,

the shouts of our men, the rumbling of the cars, the black smoke, and—it was over, with no one hurt, though slightly jarred.

The second night out we camped at the North end of Big Sheep Creek basin, near the ranch of Joe Smith. One horse was picketed, 8 were hobbled, and the others were turned loose. In the morning all were gone except the one on the picket rope. Blair and Bray went after them on foot, without any preparation for a long tramp. We did not see them again until the night of the third day after, when they returned with 18 head. Two belonging to

A COSY CAMP.

Joe Kemp were missing, and as Joe had recently sacrificed a $2,000 outfit in Alaska, he felt his loss keenly. Our animals were run off by horse thieves to a distance of 25 miles from our camp, finally up a steep mountain side and down into a deep basin. The hobbles were not removed, and the legs of the animals were terribly mangled. They were a sorry sight when they got back to our camp. Worse than inhuman brutes were they who committed the outrage on horses and men. Blair and Bray trailed the horses until they found and brought them back. Blair loves a good horse, and his wrath was dark hued and continuous. He was able to pick out the tracks of the horses ridden by the thieves and he trailed them to their corral. Having gathered some local traditions, he believes he knows who the men are, and I do not care to be present when he meets them.

During 3 days of enforced idleness I came to understand why sheep herders become so melancholy. There was one bunch of 3,600 sheep about our camp, and the continual bleating and that undulating mass of waving wool drifting aimlessly about were maddening. The herder was an agreeable man. A compensating feature in our delay was the abundance of sage hens, there being almost as many hens as sheep in the basin. Bunches of 100 to 200 could always be found in the wet bottoms, and the young birds at that season are equal to grouse. In the meantime I bought a saddle horse of Joe Smith, "Baldy" by name, and by nature a reliable and sociable beast, sound and sure footed.

Resuming our journey, events ran smoothly for a while. Our chief difficulty was with fences. We sometimes went 3 to 5 miles out of our way to weather a fence, and generally there was someone present to see that we did go around instead of through it. On the 14th we

camped at a ranch in Big Hole basin. We took turns during the night in fighting off a drove of hogs that were determined to feed out of our packs.

Sunday, the 16th, we visited Big Hole battle ground. The thrilling story of that historic event is so well told by the editor of RECREATION in his book that every reader should have a copy. Just previous to our arrival, a badger had dug into one of the graves on the point and a skull and bones lay exposed to view, thus rudely disturbed after more than 20 years' peaceful rest. Whether white or Indian we could not determine. The monument is much defaced. The badger and the vandal are on the same level of ignorance. The badger follows his instinct to burrow. The vandal yields to a morbid desire to possess. The vandal has had an opportunity to learn and should know and do better.

The next day, after leaving Big Hole, we had a startling experience. A bunch of several hundred sheep had become lost, and, seeing our horses from a distance, came tearing along after us like mad. Blair and I were leading the procession down a steep incline in a narrow part of the trail, when the bleating bunch struck our rear guard and stampeded the pack horses down on to us, pell mell. The conditions were favorable for trouble, but we succeeded in extricating our horses and selves from the plunging, kicking, biting bunch without accident, though the sheep followed us several miles and we had some difficulty in getting away from them.

Tuesday, the 18th, we camped at the ranch of John Stella, just out of Darby. Stella has a good sporting bungalow. This season he took out the party of Mr. Charles P. Pettus, of St. Louis, over the Lost Horse trail. They captured deer, elk, goat and bear.

On the 21st we were well into the mountains on the famous Nez Perces trail, from which we had been told we could kick the game as we went along. How difficult it is for one to say truly, "That was the happiest day" or "This is the sweetest music," or "She is the prettiest girl!" Generally the last seems best. I can truly affirm that at a given point after passing Castle mountain the scenery is the most beautiful in extent and grandeur, breadth and scope, ruggedness and magnificence that I have ever seen or ever hope to see, and my experience has been considerable. For an hour I continually repeated to myself, so that my mind should be fully impressed by the fact, never after to waver, "This must be the grandest sight on earth."

We camped that night near a small Flathead Indian outfit. They showed us where to find a small spring. During the evening we were overtaken by Messrs. Robb and Chillson, who were making a break to go through with us to the Little Salmon meadows. We found them good company, but they were a divided house; one in favor of pushing on and the other in favor of turning back before they were snowed in for the winter. They eventually went with us as far as the Little Salmon. The meadows, like the game, were not to be seen. We rested in camp the 23d. There had been a snowfall of several inches. The 24th we crossed McGruder mountain, one of the most difficult sections of the trail. We were profoundly impressed by the details of the awful crime committed there when McGruder, his men and mules were cruelly murdered and their bodies thrown over the cliff.

The afternoon of the 25th we were "laboring heavily in a rough sea"; that is to say, we had some doubts as to the trail. We camped that night on the summit of the Divide, altitude not less than 10,000 feet. There was little feed or water, the cold was severe, a high wind was blowing and snow was falling. Had the storm continued, our fate would have been settled right there, but fortunately it cleared during the night. On the 27th Messrs. Robb and Chillson quit at Little Salmon. They had had enough and turned back. From Little Salmon to Elk City is about 40 miles, and easily done in 2 days. An interesting feature of the trail is the multitude of inscriptions on the trees, generally some tale of woe or hard luck story, coupled with advice to turn back.

On the 28th we camped at the ranch of Buster Smith, Elk City. I drove 55 miles to the nearest railroad point, Kooskia. Blair and outfit went back over the trail, and narrowly escaped being snowed in for the winter. One horse perished, and on their last day in the mountains they encountered a furious snow storm that nearly overwhelmed them, but they finally succeeded in breaking through to Darby and thence back to Blair's ranch, in Centennial valley, where I am sure you would be a welcome visitor.

She—I understand veal has gone up.
He—I guess that's right; I see the restaurants have raised the price of chicken salad —Yonkers Statesman.

LOOKS LIKE RAIN.

TIDD MURRAY.

Low'ry sky an' Southern breeze,
  Sun he's hid ahind a cloud,
Robins singin' in th' apple trees,
  Hoppei chirpin' sort o' loud.

Guess I ain't so weather blind
  That I don't know th' token;
Reckon that thar Southern wind
  Shows th' drought is broken.

Guess I can't get in th' hay
  'Coz its sure ter rain;
Better wait till another day
  When th' signs are not ez plain.

Reckon I'll get out th' pole
  An' dig some worms an' hike
Down ter th' old deep river hole
  That used ter hold the pike.

What! th' sun a burnin' through?
  Blame it! let her burn.
An' th' sky a turnin' blue!
  I don't care; let her turn!

Might jest ez well be fishin'
  Ez ter be er pitchin' hay
When all th' time yere wishin'
  That termorrow'd be a rainy day.

AMATEUR PHOTO BY R. C. W. LETT.

A MORNING NIP.

Winner of 28th Prize in RECREATION'S 6th Annual Photo Competition.

AMATEUR PHOTO BY J. E. STANLEY.

A GOOD RETRIEVER.

Winner of 30th Prize in RECREATION'S 6th Annual Photo Competition

AMATEUR PHOTO BY DR. J. S. PARDOE.

THINKING IT OVER.

Winner of 37th Prize in RECREATION'S 6th Annual Photo Competition.

THE MYSTERY OF A BULLET.

CHARLES W. SAWYER.

One September day in 1895 John and I were starting for our vacation in Northern Vermont. As we walked through the city streets on our way to the train, we saw a sign in a gun store window, "The U. M. C. Company's new cartridge, 22 short smokeless mushroom, just received." John had in his hand a fancy 22 caliber single shot rifle, and he bought a few hundred of these new cartridges. No suspicion of the trouble they would get us into shadowed our sunny spirits while the train bore us to the beautiful woods of the North. Forests and fields, hills and valleys, sunlit waters and shadowy crags passed in endless procession, until, at last, far from the towns the conductor called "Staceyville." At this little railroad station the farmer we were to board with met us, and drove us a 3 hours' rough-and-tumble, jouncing, jolting, bumping ride, up hill and down dale, through woods and past clearings to the 'way-back farm that was to be our home. In this quiet, sweet smelling, old fashioned farm house, in the fields, pastures, and rambling orchards that made up the clearing, and in the border of the woods around the clearing, we were for a time content. There were ruffed grouse and squirrels for John to shoot with his rifle and new cartridges. There was a range sufficiently long, sheltered, and well lighted, whereon I could play at target shooting with my powerful hunting rifle. There were rest, recreation, rustic beauty, and every attraction to keep us at home, yet we soon became restless, and strayed farther and farther away.

In going about the country we often stopped at the outlying farms, and became friendly with the inmates. They were a pleasant lot of people, always ready to stop work for a chance to gossip. There was one of the lot, Ezekiel Withington, on whom we did not at first call, because the farmer with whom we boarded was at law with him, and told us terrible tales about him. We found, however, that some of the other farmers spoke well of Withington, so one day we stopped at his house. We liked him very well. He treated us to cider, and showed us about his farm. He had a magnificent place, of some 1,500 acres, picturesque buildings, herds of cattle, and a big flock of sheep. We soon found that some of the best small game hunting in the country was to be had in his woods. He was interested in John's rifle, and examined it and the ammunition with much care. Then he brought out his grandfather's muzzle loading rifle, which was a remarkably fine weapon, and we had some shooting. We found the man and his woods so attractive that we spent considerable time there. One thing seemed odd to us. He let his cattle, with a bull in the herd, and his sheep, with several rams among them, roam at will about the country, although a town road ran through his farm. We asked him if it was not dangerous. He said the bull would not hurt anybody, as he was tame, and the sheep were all pets; but we heard elsewhere that Withington had sometimes had his sheep shot. The country was heavily forested, and in the fall and winter there were numerous camps of hunters and woodchoppers, so it was difficult to fix the blame. The loss and annoyance had become so great that Withington and other farmers had succeeded in getting a law passed making the illegal killing of sheep punishable by both fine and imprisonment. In telling us about it Withington's eyes snapped and his manner was such that we could see it would go hard with an offender if Withington could catch him.

Soon after this we were going along the road one morning, guns in hand, on our way to a shooting match at the village. John had his new rifle. As we came out of the woods we saw Withington's sheep, an immense flock, feeding on both sides of the road in the pasture. They scattered from us right and left. I can do a little something at imitating the calls of various animals, and we had considerable fun in mystifying the sheep with the plaintive bleat of a lamb in distress, that drew them toward us, and the deep bass of a watchful old ram, that sent them running off again. Suddenly there was a slight sound behind us. I had only time to turn my head part way round when something like a great dirty white streak struck John in the back. At the heavy thud my friend doubled backward like a bent bow, and was thrown forward by the impact of the mass 10 or 12 feet. He fell in a heap as if dead. At the same time his assailant, an old ram, with great curved horns, came down on his feet, lowered his head, and stood ready to charge again at the least sign of life. I laid down my rifle and ran at him. He promptly wheeled and charged me. As his ponderous head almost struck me I leaped aside, put out one foot, and tripped him. He was up in an instant, but before he could get away I had him by the tail, then by one hind leg, then, after a struggle, by both hind legs. I tied them with a piece

of cord, tipped him over, knelt with one knee on his head and the other on his body, and tied his front legs.

John, meanwhile, had got up, and was limping along to get his rifle. The first thing he thought of, after the edge of the pain was off, was whether the rifle was injured. It was without a scratch, for it had fallen on soft grass. John was the sort of fellow who would not give in to pain. He said he was all right, but I could see he was hurt. However, after sitting down awhile he insisted that we go on to the shooting match. I unfastened the ram's front legs, and taking his hind legs, trundled him along, wheelbarrow fashion. We got to Withington's after a while, and I fastened the ram in the sheep pen. We called at the house to see Withington, but he was away. I told Mrs. Withington the facts in the case, and added that I was afraid my friend was hurt worse than his grit would let him acknowledge. I asked if we might have a horse and buggy and Mrs. Withington consented.

We found a motley crowd assembled at the range. There were boys with cheap rifles, and men of all ages, with arms of about every degree of poorness and excellence. In spite of John's grit he was unable to walk without a bad limp, and this soon drew the query as to how he got hurt. His hurt did not affect his shooting, or his skill at making bull's-eyes, and the beauty of his rifle brought a crowd of lookers-on. They were greatly interested in the ammunition, for, although the bullet was small, and the powder of little bulk, it shot, in John's hands, better than their heavy charges. They championed him strongly in the matter of the ram, and were loud in their statements of what they would do if they had been in our place.

"Why," said one old grandfather, "that Zeke Withington haint no right on airth to let his cattle 'n sheep run in the public road. You orter shot that ram right then an' there, an' he never could 'a touched ye fer it. What's more, you've got a case agin him fer heavy damages. You just sue him fer $5,000 an' larn him a lesson."

"That's right," said half a dozen around us. The village lawyer edged his way up, and offered to take the case.

"You've got a clear case, gentlemen, and if you want to trust it to me, I'll guarantee you good money out of it."

We refused his offer, and John said he thought he should let the matter drop.

When we got back with the horse and buggy Withington had returned. There was a snap in his eyes that told us he had received the news from his wife, and considered that henceforth we were to meet as foes. John was as pleasant as usual.

"I suppose you heard from your wife," he said, "that your ram assaulted us this morning, on the road?"

"Yes," said Withington; "and I suppose you'll have Lawyer Gibbs, down to the village?"

"No," said John, "I shall not sue." Withington looked as if he wondered what kind of trick John would play.

"You and I have been good friends, Withington, and, as far as I am concerned, we shall remain so."

Withington soon became like his former self, and we left on the best of terms; yet, I had a suspicion that he thought there was a screw loose somewhere, and that he might yet get a rap when he was off his guard. The spirit of revenge was inbred in him, and in every one of the men thereabout we had chanced to meet, and he found anything different hard to believe.

The next to the last day of our vacation arrived, and we decided to go gunning. We went through a stretch of oak woods near the brow of a long hill above the pasture. We thought we ought to find some grey squirrels there, and perhaps a few ruffed grouse, but although we kept very quiet and exercised our utmost skill, we did not see or hear a thing larger than small birds. We did not even fire our rifles, and went home saying it was the poorest afternoon's hunting we had had.

The next morning we went over to bid goodbye to our neighbor to the South. The first thing he said to us was,

"Well, boys, that was big game you got yesterday," and he gave us a wink. We thought it was his joke on our not getting any game, and wondered how he knew.

"Yes," said I, "so big we could not get it home."

"How'd ye shoot it," he asked. "Accidental?" and he winked again and grinned.

"Shoot what?" said John.

"Why, Zeke's sheep. Haint ye heerd about it?" with a broader grin.

"No," said I, "we not only have not heard about it, but we didn't shoot it."

"O, go 'way! You needn't be afraid of me."

"Tell us about it," said John.

"Why," said the farmer, "last night about sundown, when the sheep come home to the pen, Zeke an' his man, who were standin' by the pen, noticed one of 'em was sick. It was kind er totterin' along, and pretty soon it laid down. Zeke, he went up to it, and it was dead, so quick. He turned it over, and ther warn't no mark on it nowhere, so they cut it up to see what the matter was with it. They found one o' your queer little holler bullets in its vitals. Must have been shot within half an hour of when it died, so it must have come straight from the

pasture side of where you fellers was gunnin', 'cause that's 'bout half an hour's sheep travel from the pen. Looks ter me 's if Zeke's got a clear case agin you fellers, an' by gosh, I'd rather 't be you than me. Say, why didn't you take a likelier chance, when it was 'way off, somewheres?"

John and I looked at each other, amazed.

"Well," said John, at last, "let's go over to see Zeke."

When we reached his house he greeted us pleasantly.

"I have just heard," said John, "that one of your sheep was shot, and that the bullet looks like one of mine."

"There it is," said Withington, producing it from his vest pocket. It certainly looked in every detail like one of John's.

"I do not know as you will believe me," said John, "but I hope you will. I did not shoot that sheep, nor did my friend. The first we knew of it was when we were told this morning. Neither of us did it, either accidentally or purposely, I pledge you my word of honor. Will you believe me?"

Withington chewed a straw, and did not look up or say anything for some time. Then he smiled rather pleasantly, and said:

"My wife said she didn't believe you did it on purpose."

He talked pleasantly, and bade us goodbye. We hardly knew what to think. On the train going home we talked the matter over continually. Surely, had Withington chosen to arrest us, we should have had to suffer on circumstantial evidence, for never was an innocent suspect convicted on a clearer case. First, Withington's counsel would mention to the jury the matter of prejudice. Our farmer was a bitter enemy to Withington, and never let a chance slip to say an ill word of him. We should naturally be prejudiced in the beginning. Then, there was probable cause, the ram's assault. Strongest evidence was the bullet, just like John's, never seen in that country before, none like it to be had anywhere near, except of John. Witnesses there were in plenty for Withington, not one for us.

"Well," said John, in conclusion, "either we shall yet feel the weight of his vengeance, or the leopard has changed his spots."

As time passed, and we were left in peace, we concluded that Withington felt we had done by him, in the matter of the ram, as we would be done by, so he had returned the good deed to us; but there is yet a mystery, and that is, who did shoot the sheep?

AMATEUR PHOTO BY E. C. THATCHER.

QUAILS IN THE STUBBLE.

Winner of 38th Prize in RECREATION'S 6th Annual Photo Competition.

COLE.

C. E. PLEAS.

Not a big boa constrictor of the jungle story, but a little one, the hero of which is a beautiful red and dusky spotted fellow about 2 feet long. Scientists will better know him as *Coluber guttatus*, while his common name varies in different localities. Sometimes he is called spotted racer, and again house snake and chicken snake; but if you want to know his greatest aim in life, give him a mouse or a young rat.

I started to call him our pet, but as he never showed affection for anyone, nor preference for one person more than another, he is hardly entitled to that name. Yet from the time he was taken captive in 1900 until given his liberty last spring, he was as quiet and gentle, when handled, as if he had been raised in captivity.

Our first meeting was down in the orchard one hot day in July. I was raking hay; he was asleep underneath. I took him in my hands and deposited him in a cage prepared for such a purpose in the barn. There he seemed fairly contented, and greedily took his food and water when offered. The old idea that snakes feed only once in 3 months has long since gone out of my mind. Possibly some do, but my observations are different. The supply, I believe, governs the time of feeding more than aught else.

Cole was about 16 inches long when captured, but it seemed that every mouse made a noticeable change in him, particularly just after a big meal, and we could almost see him grow. He drank about like a cow in manner, and almost as often.

We had a rat hunt in the barn one day, and Cole played the part of executioner. Among those caught were 9 young rats, about a third larger than house mice. As in the case of all other executions, a special place was prepared for this one. A shallow tray 16 x 18 inches, with a layer of clean sand in the bottom, was put in a public place, a few tufts of grass were placed around the edge, a glass cover was provided and the next thing was the audience.

AMATEUR PHOTO BY C. E. PLEAS.

A FULL MEAL.

A camera with its wide angle eye was given the best view commanding the whole arena, and was supplied with plates on which to take notes. Cole was then placed in the arena, a rat turned in, and the performance began. The rat, of course frightened, had forgotten the old fable about snakes charming their prey, and was in too great a hurry to investigate Cole's mesmeric powers, running about as fast as it could, to find a way out.

From the way in which Cole gave pursuit one would judge that he had little intention to charm, and he caught the rat about as a bow legged man would catch a pig in an alley.

I can not describe the scene that fol-

lowed, it was done so quickly. The photograph "In Mortal Coil," made during the execution and published in June RECREATION, best illustrates it. The rat was held as shown until life was extinct, when the coils were slowly relaxed.

The remains were swallowed as shown in the accompanying illustration. The supply of rats held out longer than Cole's appetite, but his instinct to kill was so great that he continued to seize and squeeze until he had executed some of them several times over; the dead being made to appear alive by being poked with a thin wire. He would take dead rats in motion, but never lying still.

Cole was given his liberty this spring, in hopes that he would remain about the barn and catch rats, but he proved ungrateful, for he disappeared at once and has not since been seen.

Single specimens of this kind have been found measuring over 4 feet in length. They appear to be semi-domestic in their tastes, being frequently found making themselves at home in some dwelling, where, though innocent of harmful intent, they are likely to cause consternation among those who are not acquainted with their habits.

One of these snakes innocently deprived me of an interesting photo in the fall of '98. About 1,000 swifts had taken temporary lodging in one of our chimneys. At sundown they swarmed around and dropped into the chimney in a black stream. We counted several hundred, one evening, after they had been going in for half an hour, and we thought what an interesting picture that would make; so the next day I set the camera on the roof in good time and waited. Dark came, but no birds, save one or 2 stragglers that flitted by. Mrs. Pleas had that day stepped on a big *Coluber* in the room by the fireplace, and on examination it was found to contain 2 of the birds.

Thus our disappointment was explained.

AMATEUR PHOTO BY WM. H. FISHER.

HIGH AND DRY.

FERRUGINOUS ROUGH-LEG HAWK. *ARCHIBUTEO FERRUGINEUS.*

A DEER HUNT IN LOST PARK.

H. J. L. BARNES.

In August, 1898, I left my home at Glenwood Springs, Colo., for a hunt on White river, a fine trout stream, 40 miles North of Glenwood. All I took with me was a frying pan, 25 pounds of flour, a little salt, pepper, coffee and sugar, my rifle and fishing rod, and one blanket besides my saddle blanket.

The first night I reached Mud Springs, and by noon next day was on White river. The second night I spent at Marvine creek, where I caught a mess of trout for supper and breakfast. The following night I camped at the end of the wagon road on the North Fork of White river, just at the mouth of Lost creek. At 5 a. m. I was 3 miles farther up North Fork and began fishing. By noon I had a creel full of trout, among them one rainbow weighing 5½ pounds.

Next morning I took my rifle, a 25-20 Winchester, and set out for Lost Park. I had not gone far before I came on a doe and 2 fawns. I did not fire at them, because in Colorado it is against the law to shoot anything without horns. A little later I saw a bunch of 4 deer, 3 bucks and a doe. When I opened fire I had 15 shots in my Winchester; after the deer had skipped I could find only 6 cartridges in the gun. The rest were not in the deer either.

Feeling pretty sore over such shooting, I pushed ahead. As I rounded a bend I saw 2 bucks in a clump of small trees. They were fully 300 yards away, and I raised the sight to the proper notch before I fired.

At the report the buck farthest from me dropped; the other remained motionless. With careful aim I fired twice at the standing deer. Then I raised the sight for 400 yards and tried again, with no result. He must be clean out of range, I thought, and began creeping nearer. Not until I was within 100 yards did I discover I had been shooting at a rock. Where I had seen a buck fall I found tracks leading down the other side of the ridge. There was no blood, however, and I did not think it worth while to follow.

Late in the day I ran on to a pair of elks, but elks are protected here and I had to let them go. Well, thought I, fishing is my best chance; I'll go back and fish. Just as I crossed Lost creek a 6-point buck rose from behind a log not 15 steps from me. The Winchester cracked and the buck went down, shot through the stomach. In an instant he was on his feet again and off down the creek. Two shots followed him, but with no result. I put spurs to my horse, and after a chase of 3 miles got another shot as the buck was about to recross the creek. That time he went down to stay. I jumped from my horse, drew my knife, and in a minute was at the side of a 280-pound buck. He was still breathing, and when the knife point touched his throat he made one last effort to regain his feet, knocking me backward into the creek.

I had to dress him on the ground as he was much too heavy for a boy of 15 to lift. I got him dressed at last, and then came the question of how to get my game to camp. It occurred to me that I might float him down the creek. I tied a rope around the deer's neck and dragged it into the creek. It was hard work dodging rocks and stumps, but the worst of all was when I came to a fall. It would never do to let the deer go over it. I went back after the horse, took him down and backed him under the fall. Then I eased away the rope that held the deer above until the carcass came down on the horse, where I managed to tie it. It was midnight before I reached camp, tired, wet and hungry.

I remained in Lost park 18 days, hunting and fishing. In that time I shot 2 deer, 1 antelope, 1 wolf, 1 wildcat, 1 fox, 2 coyotes, 38 grouse and 19 rabbits. I also caught 81 trout, weighing over 60 pounds. The trip, including ammunition and fishing tackle, cost me only $5.90.

General: "And did your men run away?"

"Sir! His Majesty's 2,781st Lowlanders NEVER run away! We surrendered, sir!"
—Life.

TWENTY-ONE GRIZZLIES IN SIGHT.

W. H. WRIGHT.

A chance conversation between Mr. Coleman, of New York, Dr. Penfield and me, led to an impromptu bear hunt in which the hunters came off second best, though game was more than abundant. During the trip 21 grizzlies were seen; also the tracks of scores of others, some of the footprints measuring 8½ x 12 inches.

I had heard of a place in British Columbia where bears were found in droves. On my speaking of it, we agreed that we 3 would visit the region provided we could start at once, the time at the doctor's disposal being limited to 10 days. Accordingly we left on an early train the next morning, and 2 days later found ourselves within 20 miles of the bear country. The remainder of the journey had to be made with pack horses.

It was early for bears to be out, as the snow was still deep, and we were advised to remain in town a few days at least; but as we had good tents, stoves, etc., we decided to push on as far as possible and then wait until the snow settled enough to permit farther progress. This we did, hiring a man and 5 horses to pack our outfit while we walked. Our trail was an old prospectors' path leading over the steepest and most difficult hills. No one had traveled it since the year before, and there was much down timber to be cut.

We struck the trail at 3 p. m. and followed it 11 miles. The last 2 or 3 miles we made by pounding down and plowing through soft snow 3 to 4 feet deep. By that time we were all tired, hungry and cross, and being then on a little side hill free from snow and facing South, we concluded to wait a while. After sending back the man and the horses we proceeded to make camp, no easy thing in a country that fairly stands on end, and where there is hardly a bit of level ground large enough to play marbles on. We cut logs and boughs, drove stakes, skinned trees and at last got our 12 x 20 tent erected, but at a cruel cost to the timber of the Dominion.

The weather, which had been mild for a few days, became colder, with an occasional snow storm. We could do nothing beyond beating up and clearing the trail ahead in readiness for a move when the time came. This state of affairs continued 2 weeks and outlasted Dr. Penfield's patience and leave of absence. Early one morning he took the trail South, promising to try again another season.

His departure seemed to break the spell, for the next day warm weather began. Two days later, when the man and horses returned, we succeeded in reaching a little bottom 6 miles farther on, where we made our final camp. Just before getting there we saw our first grizzly track, evidently made the evening before.

The mountains are high, steep and hard to climb. Every half mile or so snow slides have left their mark, sweeping before them to the creek bottoms everything that offered resistance. These old slides are covered with bushes which, yielding before the onrushing snow, have been left to grow, slanting downward. This makes it next to impossible to get through them when going up, though one can slip down easily enough. Amid the bushes are little parklike patches covered with grass and a yellow lily having a bulb root. It is on grass and these lilies that the bears live. Emerging from their dens in spring, they make their way down to the foot of the lowest slides. As vegetation becomes older and tough they work up the steep and narrow canyons, following the snow. When they have reached the highest divide their bedtime has come again. If when they first come out the grass has not started, they nip the small and tender twigs of the bushes, which are mostly maple.

There is no game other than bears in that country, except on the high divides, where caribou are said to be plentiful. We saw none, however, nor even any tracks.

Hedgehogs were all too abundant; we never went out without seeing a dozen or more. They will eat anything at all salty, or that has been handled by man. At first we thought them cute, but changed our minds when they began to eat the tent and walk all over us while we lay asleep. Not a night passed that we did not have to get up once or oftener and knock the sawdust out of misguided hedgehogs that insisted on eating our shoes, hats and anything else we had neglected to hang on the tent pole.

There were many large timber wolves; we saw their tracks everywhere. A band came within 300 yards of camp. Following the trail the next day we saw where one had left the bunch. Out of curiosity we tracked the lone wolf and were led to a hole in a large cedar tree. The track went in and out. In the hole were 4 little black wolf pups, their eyes not yet open. We took them to camp and returned to watch for their dam. She did not return that

day or the next. When she did we heard of it, for no sooner did she miss her pups than she raised a howl, assisted apparently by all the wolves in the country, that made the hills ring. We tried to raise the kidnapped babies, feeding them condensed milk. Two died in a few days and the others lived but 2 weeks.

A day or so after moving camp we started out to round up some bears. Two miles back on the trail we came to a slide clear of snow and already green with grass. A half mile up the slide was an open space which we thought it well to investigate. We entered the gulch, through which ran a little stream, and climbed up. At the edge of the clearing I stopped and looked over the ground. Not 100 feet away stood the prettiest old grizzly I have ever seen. His head and shoulders were tawny; back of them he was white as snow. He was not eating, neither did he appear alarmed, but had altogether the air of a portly old gentleman looking over property with an eye to making a bid.

Without looking around I motioned for Coleman, and when he did not respond I turned and saw him some distance to the rear. Not until I made frantic gestures could I attract his attention. When, at last, he reached me the bear had vanished, having undoubtedly winded us. We followed him a mile or more; then as he kept persistently in thick brush, we gave it up.

Across the creek from camp was a high mountain with 3 large slides on the side facing us. Those we watched with glasses and there we saw our next bear. He was another overgrown old fellow, white all over. He appeared on a little lawn half a mile up the hill. Below him was a cliff some 500 feet high, which we would have to round in order to reach him. As it was late we decided to wait until morning and then go up and lay for him. It took us 3 hours to reach the place where we had seen him, and the ground was so steep and the brush so thick that we did not think it worth while to wait. Often after that we saw the old fellow from camp, but did not attempt another campaign against him.

By that time the snow was going in earnest, slides were frequent, and we confidently expected some real bear hunting. Every old slide contained one or more bears, some white, some brown, some half-and-half. We climbed hills, cut trails, felled foot-logs across creeks; but the bears still stuck to the side hills, ate grass, dug bulbs and minded us not at all. It would take us so long to get where we saw a bear that there was no chance for us. With a pack of dogs we could have cornered many. After goose-chasing those grizzlies 2 weeks we hung up our things, tied the tent door and walked 17 miles back to the lake. A man lived there who claimed to have killed many bears on our creek, and we asked him if there was any patented way of doing it. He said we should have baited them and then watched the bait. We had thought of doing that, but it seemed like taking an unfair advantage. However, Mr. Coleman wanted a bear and at last said he did not care how he got it.

We went on a few miles and found a man who had an old horse sick with the heaves. He was going to kill the poor beast to get rid of it, until he found there was a market for bear bait. There was an instant rally in equine values, but we finally closed a deal at $20 and started campward, leading our bait. Our progress was slow. About every 100 yards we had to stop 10 minutes while the old horse recovered his wind and composure. When we finally reached camp with our prize we felt that he fully deserved the death penalty.

A few miles above camp was a branch stream coming from a range of high, rough hills to the Eastward. There was no bottom land along it, the mountains running down to its very bank. There were slides along this creek half a mile wide at the base and extending far back into the mountains. There, we thought, would be the place for our bait, as bears could hardly miss it. We assisted the old horse to the first slide, roped him over the creek and killed him in a little open place near a cedar thicket. Across the creek, about 75 yards away, we built a blind, and cut every bush that could intercept our view of the bait. The blind was so arranged that we could approach it unseen.

We cut off the horse's head and dragged it a mile up stream to an old deadfall. Coleman was getting desperate and bound to have a bear one way or another. We fixed up the old trap, piling logs as big as we could lift around it to make sure bruin could not get the bait without being pinched.

Within 3 days a bear had found it. That we discovered one morning and the same afternoon we watched the bait from the blind. Next morning we again watched, returning to camp at 11. Coming back at 2 we found the bait gone. We had never seen bears around in midday; always before 11 or after 2. This fellow was the evident exception to the rule.

We found he had moved the bait to one side out of sight of the blind, eaten a hearty dinner and departed. Getting ropes we hauled the remains back and watched until dark. Next morning we were at the stand by daybreak. There had been nothing

doing over night. At 9 I returned to camp to do some cooking. Later I relieved Coleman. He came back at 4 and we both watched until dark.

Next morning the bait was gone. We recovered it and watched all day. For 5 days we pulled that horse one way and the bear pulled it the other. When there was nothing left but bones we piled them up, and congratulated ourselves on having had last move in the game. To be sure our ante was $20; but the bear earned it.

We decided to look at the trap, pack up and pull out. When we passed the stand Coleman looked for the bones. They were gone!

At the trap another surprise awaited us. A bear had carefully removed our logs, eaten our bait and gone on his way rejoicing.

We are going back next spring. Meantime we invite proposals from persons who think they have dogs smarter than those Selkirk grizzlies.

AMATEUR PHOTO BY C. M. HAY.

THANK YOU.

Winner of 34th Prize in RECREATION'S 6th Annual Photo Competition

MY BATTLE WITH A GREAT HORNED OWL.

F. G. E. BUERGER.

In September, 1901, business called me down to the Buffalo hills, of Arkansas, the outrunners of the Ozarks, or better, the Boston mountains. I had been led to believe that in the forests I should find deer, turkeys and smaller game, and that in the clear waters of the Buffalo the wily bass were only waiting for the man with rod and reel. Alas! the deer had been run out with hounds years ago, and as the result of giant powder the beautiful stream yelded so little that even the patience of the most ardent angler was overtaxed. Some quails and turkeys were reported and occasonaly a dog might jump a rabbit. That was all. The tapping of the yellowhammer was about the only sign of life, a welcome sound that broke the dead silence of the vast forest.

"Hit's only the varmits that's left," the natives told me. "Rabbits? Why, hit's the owls and red foxes that done away with them."

In consequence I hung up my Savage 30-30, my other guns and fishing tackle, and with a deep grudge against the foxes and owls, and especially against the 2-legged "varmits," my wife and I, with net and cyanide bottle, rambled, as of old, through the forest and beautiful valleys in search of coleoptera and lepidoptera, a tamer sport that that with rod and gun, but withal equally fascinating and undoubtedly a better and more satisfactory one.

St. Valentine's day came and with it the first snow of the season. Who could have stayed home on such a day?

"Bring me my Valentine," called my wife after me, with a dubious smile on her lips, as I stepped out into the brisk wintry air with my little 16 gauge Syracuse over my shoulder, and Nemo, my beagle pup, at my heels.

That day the unexpected happened. Scampering along over the snowclad hillside came bunnie, who had evidently lost his bearings, only to stop at the peremptory "halt" of my gun and to find his way into my alas, too roomy, game pocket. The rabbit was a measly, dyspeptic looking specimen, but a rabbit after all; and when, later in the day, I succeeded in bringing down a chicken hawk that soared high overhead, I felt once more the joy of the hunter, the fascination of sport. The hawk measured 4 feet 1 inch from tip to tip, and to-day looks down on us from his high pedestal in our den, much valued by my wife as her "Arkansas valentine."

Not many hundred yards from our house a rocky bluff arose about 100 feet in height, its summit crowned with evergreens and crooked oaks, whose gigantic silhouettes stood out clearly against the sky. The spot was extremely picturesque, and the many crevices in the rock afforded excellent hiding and nesting places for bats and owls. The hooting of the latter could be heard a long way in the stillness of the surroundings and, judging from the deep, sonorous tone of their voices, I concluded they were of the same large variety that caused the untimely death of Ernest T. Seton's Raggylug. I was to find out for myself soon after.

Snow had fallen all night, the heaviest snow in Arkansas for 17 years. A magnifiment sight met our eyes in the morning, and soon we were out with our camera among the white capped rocks and snow bent cedars to get a few pictures of the delightful landscape that stretched in all directions, glistening and glittering under the cold rays of the winter sun. The afternoon, too, was spent in the same fashion, to make the best of an opportunity so seldom offered under these skies, and it was not until the dying sun glided the tops of the mountains that we reached home, weary from our long and difficult tramp. I was about to take life easy the remainder of the evening, when, like a challenge, there came from the rocky hillside tne deep, long-drawn hooo, hoo, hoo, hooo of the huge bird of darkness. The next minute found me climbing again, that time in the direction of the bluff. While I stood a moment panting and gazing, a pair of great horned owls arose from an overhanging rock and flew up on the crest of the hill. The distance from where I stood was too great to justify a wing shot, but I marked the place where the birds alighted and was about to commence the ascent of the hill, when one of the owls returned and made the highest branch of the dead oak tree, right on top of the precipice, his point of observation. Apparently not larger than a quail, the form of the bird stood out against the wintry sky. In order to get a better range, I cautiously began to advance, but the keen eyes of the owl had espied the enemy, and I knew that in a moment my prey would be gone. In an instant my gun was at my shoulder, and when the echo of the report rolled back from the hills, I saw with pride and joy the mighty bird hanging lifeless in the branches, only to roll, a moment later, down among the boulders.

Breathless and excited I reached the top of the cliff, but found that on account of the circuit I had been obliged to make,

I had lost my bearings. No trace of my game was to be seen. Every minute it grew darker, and had it not been for the whiteness of the snow, I should have been compelled to postpone my search until the next morning. The thought of it did not strike me favorably. My hunting passion was up and once more I pressed forward. That time success rewarded me. There, near the edge of the precipice, lay the owl, my game, apparently stiff and lifeless.

However, locating the bird and getting it were 2 different things. The ground was slippery, and the deep snow treacherous. One false step might hurl me down over the bluff. What should I do? Was the prize worth the risk? Was it not satisfaction enough to know that I had made a good shot? To all these questions there was only the same stubborn answer; "Get your game!" With the help of saplings and overhanging branches I slowly began the descent, feeling the ground step by step, until, half creeping, half sliding, I came near enough to reach for the coveted prize. Grasping a stout limb with my right hand and bracing my knee against the protruding rock, I succeeded in seizing, with my left hand, the owl's wing. Like lightning the bird swung around and buried his powerful talons in my hand. The attack was so unexpected and the pain so intense, that I came near losing my hold. The tables were turned; the hunted bird had taken the offensive. The yellow, malicious eyes glared at me as big as saucers, and the continual cracking of the sharp beak showed that my adversary meant fight. Handicapped in every way I instinctively tried to dash my enemy's head against the rocks, but he cleverly dodged time and again. My position was becoming more and more trying, hanging there, so to speak, in midair, struggling with a foe that stuck faster than glue. To regain my strength I tried to pause a few moments in our pass-at-arms, but the owl evidently did not believe in an armistice, and to make the situation clear to me he dealt me with his free wing such a vicious blow across my face, that I became totally blinded and dazed for a few moments.

What might have been the result of the fight had my enemy been in possession of his full strength, would be hard to tell. As it was, his wounds soon began to weaken him, his attacks grew fainter, and dashing him with all my strength against the boulder, I ended the life he had so bravely defended. I could but admire the pluck and gallant fight of the owl, and I wish I could have ended the struggle in a more sportsmanlike manner.

Worn out and bleeding, but exultant and proud, I reached home. The owl, a beauty, measured exactly 4½ feet from tip to tip, and was promptly mounted to remind me in days to come that under certain conditions the hunter of "small fry," too, may encounter a thrilling experience which he will remember with as much pride as his brother sportsman who can tell of hairbreadth escapes from mountain lions and grizzlies.

A MEMORY.

EDITH M. CHURCH.

A moon just over the hilltop,
Shining so round and bright;
Fir trees that look like spectres,
In the weird, uncertain light.

Night shadows upon the waters
That stretch away to the shores;
Half way 'twixt light and shadows
The fitful dip of oars.

A boat glides through the darkness,
Then passes forever from sight,
Lost in the Past's great ocean,
In its deep, mysterious night.

Will no vision come in the future,
As we eagerly press to'ard the mark,
Of a boat that drifts through the shadows,
And is lost again in the dark?

HOW THE QUAILS WERE PRESERVED.

DAVID BRUCE.

"I fed a little bunch of quails all winter," said my friend, the farmer, as I got into his buggy. He had asked me to go to his place with him to shoot a fox. He knew just where to find him, he said, for he had tracked him on the snow to a lot where a wagon load of cornstalks had been overturned, and fearful of disturbing him, had driven down for me. He said he had no confidence in his own shooting any more.

"Not but what my old gun would fetch him, if he was anywhere within 15 rods; but my eyesight aint so good as it was 20 years ago."

He had been all around the lot and was confident the fox hadn't left the cornfield, and he was sure we could have lots of fun. His shepherd dog would hunt better than half the hounds.

"You see," said he, "I've fed a little bunch of quails all winter. They come right to the barn and feed with the fowls. I like to see the little fellows. Lord! when I was a boy, what a lot I used to get, to be sure. I hadn't seen but one or 2 for years. This little knot was huddled up in the corner of my orchard fence during that big storm we had Christmas week, and I have fed 'em ever since. There were 8 at first, now there are only 7; but I mean to take care of 'em and see if they won't nest close by, for I'd like to see 'em common again. This pesky fox must be killed the first thing, or they won't have much chance. Blest if I don't think we are going to get another storm; when you see that long, dark, streak of cloud over old Ontario, you may be sure there's something a coming."

True enough, the sky looked threatening. I certainly should not have ventured out of my own accord, but it was not more than 2 miles from my house, and my friend had always been so good natured and liberal with the produce of his orchard and garden that I was glad to oblige him; so we went.

"Well, we will go to the house for a minute and see the missis, and have some cider and apples, and get the old gun."

This gun had done wonders in its day with the wild pigeons and golden plover, and, like Captain Cuttle's watch, was "ekalled by few, and excelled by none." It was a really handsome old single barrel, of Spanish make, I think. It had been neatly converted to a percussion lock, and was tenderly cared for and greatly valued by its owner, who was never tired of recounting its wonderful performances. His shooting yarns almost invariably ended thus: "I blazed away at 20 rods and the old gal made a clear sweep, for I killed the lot."

By the time we had crossed the big orchard and a narrow strip of woodland, the wind began to blow. It was past 3 o'clock, and there was every prospect of a big storm coming We hastened into the cornfield, though my friend's dog was loth to leave the woodland, which was thickly marked with rabbit tracks. The snow had fallen 2 days before and was nearly a foot deep. We had but just got over the fence when whish! came a furious snow storm.

"If we can get to the cornstalks and have a look around," said my companion, "we'll hurry back to the house, but we may have him yet."

"I told him to take the dog around the snow-covered mound of stalks, and I would be ready if our game started; but I hadn't much faith in the affair, and the snow storm was almost blinding by that time. He walked a few rods to the right of me with the dog. I heard a quick exclamation; up went his weapon. Bang! Yes; another laurel wreath for the old gun! There was a fluttering and struggling for a few seconds; a few feathers blew toward us. We looked at each other, and the old man cried:

"What in hell have I done? I thought I saw the fox's head and, blast my picture, I've shot the quails!"

Yes; he had. And the old gun, true to its traditions, had "killed the lot"!

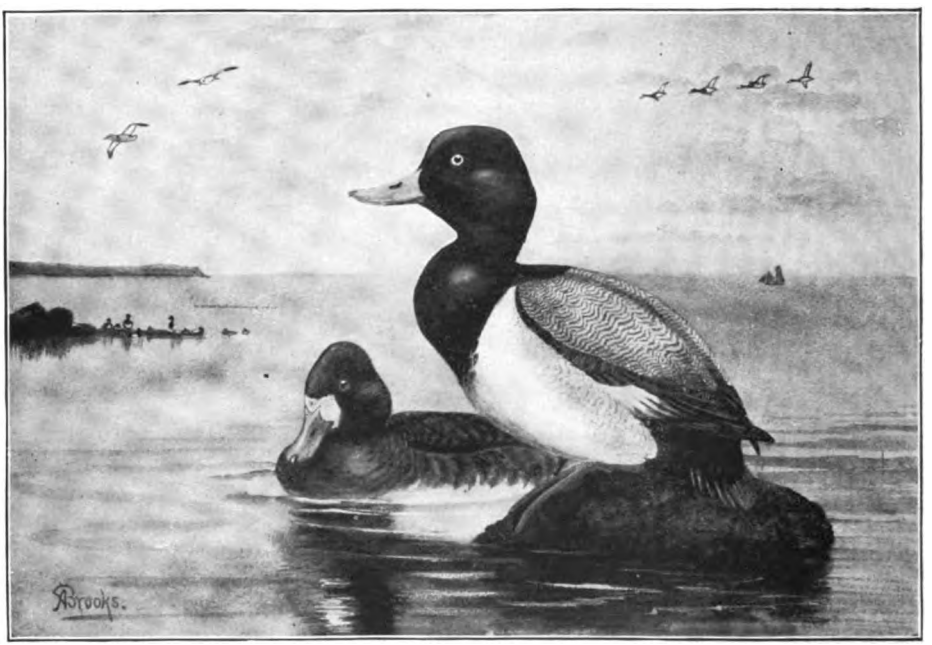
"Is that the latest book you are reading, dear?"

"Oh, no! This book has been out since noon yesterday."—Ohio State Journal.

THE LESSER SCAUP.

ALLAN BROOKS.

Few ducks are so closely allied as the 2 species of scaup, more generally known as blackheads or bluebills. When examples of both species are laid side by side, the much larger and broader bill of the greater scaup is conspicuous, as well as the larger size of the whole bird; but the infallible distinction between the 2 species is the pattern of the wing. In the larger species the white bar on the secondaries is continued on the outer webs of 6 of the primaries, or long flight feathers; while these are entirely grayish in the lesser scaup, the white being confined to the secondaries. Even in flight this will serve to distinguish the lesser scaup. The white wing bar of the greater scaup appears to extend nearly the whole length of the wing.



THE LESSER SCAUP. *AYTHYA AFFINIS.*

The head of the adult male is glossed with violet in the lesser and green in the greater scaup, but really perfect specimens showing this character to good advantage are seldom seen, especially in fall, when most duck shooting is done.

The lesser scaup is found throughout North America, except, perhaps, the extreme Northern rim of the Continent. It has a decidedly more Southern range in the breeding season than its larger relative, breeding West of the Rockies, as far South as latitude 52 degrees.

In habits the 2 are much alike, though the smaller species shows a decided preference for smaller bodies of water, more often being found on fresh water lakes and ponds than on the sea coast and estuaries. Scaup prefer to seek their food in water about 10 feet deep, though capable of reaching the bottom at much greater depths. As a rule, they do most of their feeding in the daytime, resting toward night in large, densely packed flocks, generally known as rafts or beds; but where frequenting salt water they feed according to the tides. In the gray of the morning they are especially active and noisy. The cry of both species is very like the long drawn meow of a kitten. They also utter a harsh croak.

The lesser scaup is a late breeder, laying its eggs in some tussock of marsh grass close to the water, late in June, when its congeners, the canvasbacks and

ringbills, have their broods hatched out. The downy young are much darker than those of the canvasback or the ringbill, being almost uniform dusky olive above, with little trace of the light colored spots so conspicuous in most ducklings.

Two or 3 mother scaups will sometimes pool their interests. I once observed 41 ducklings led by one mother, while the other 3 herded them in the rear, whipping in the stragglers. Like most diving ducks, the young at first get all their food from the surface, picking up flies, larvæ, etc., with incredible quickness. The young of the ruddy duck are the only ones I have noticed diving for their food.

The iris of the adult male lesser scaup is yellow; bill pale leaden blue. In the female the iris is yellowish brown, bill varying from dark grayish to leaden blue. The feet are plumbeous, with dusky joints and webs in both sexes.

SONG OF THE ROBIN.

REV. R. S. STRINGFELLOW.

Cheer up! Cheer up! Cherries are ripe!
cheer up!
High on the topmost boughs we will sup
And we'll drink the red wine from nature's
sweet cup,
For cherries are ripe! cheer up! cheer up!

Cheer up! cheer up! The day lulls to rest,
The sunlight fades in the clouds of the
West,
My mate and my little ones sleep in their
nest.
Cheer up! cheer up! cherries are ripe!
cheer up!

Cherries are ripe! Cheer up! No trouble
to borrow,
For God will care for the things of to-
morrow.
He brings the sweet cherries and cares for
us all;
Without His fond care not a robin shall fall.
Cheer up! cheer up! cherries are ripe!
cheer up!

The clouds of the evening have fled with
their gold,
The echoes are still from the chimes that
were tolled,
My little ones sleep all safe in their nest,
Under sheltering wings and my little mate's
breast.
Cheer up! cheer up! cherries are ripe!
cheer up!

Cheer up! for to-morrow will soon be here.
Never fear, the God of all Nature is watching us near;
Swift banners of light will soon be unfurled,
And again I shall sing to God and the
world.
Cheer up! cheer up! cherries are ripe!
cheer up!

So early and late my song is to all,
Through spring and through summer till
snow flakes shall fall;
Then far to the South my flight I shall
wing,
And to others in distant lands I will sing
Cheer up! cheer up! cherries are ripe!
cheer up!

"It's an A1 display," said Mr. Pitt, at the dog show.

"It's a first class exhibition," replied Mr. Penn, "but you have the wrong number."

"How so?"

"Instead of A1 it is K9."

—The Dog Fanciers' Gazette.

AMATEUR PHOTO BY OLIVER LIPPINCOTT

YOSEMITE CREEK NEAR THE FALLS.

Snap shot in dense woods with Plastigmat F6. 8 Lens.

AN IDEAL VACATION.

C. H. DILLON.

One soft, balmy morning in early spring my chum and I started for our annual week with nature. By sunrise we were within 20 miles of our destination. A fox squirrel, out for his breakfast and an early morning frolic, scampered along a rail fence and vanished like a streak of dull red into his castle. About 3 p. m. we reached the camp ground, on the bank of the Lamine river. A heavily wooded point ran out into the river, and in a natural clearing in the center we pitched our tent.

After everything was made snug for the night, fire wood up and horses attended to, Dan left me to the pleasant task of cooking supper while he went fishing. While busying myself about the camp I heard a squirrel barking. I got the gun and after a half hour's walk succeeded in getting 3 squirrels.

Returning to camp I had nearly finished broiling them when Dan came in with 4 large bass. We had a glorious supper, which suited our appetites exactly. About 9 o'clock we turned in, to be lulled to sleep by the voice of the creek.

After breakfast next morning we both left camp and went to the place where Dan had had such luck the evening before. We caught a few small fry of bass and crappie and as I made my last cast, the fly was taken by a bass. Forty yards of line were whirred off at once. Finally, after 20 minutes of hard work, I landed him, a small mouth, of 5 pounds.

That was enough for one day, so we went back to camp for lunch. In the afternoon we took the guns and hunted along the river, getting 4 grey squirrels and a woodcock. We broiled 2 of the squirrels which, with some hoe cake and coffee, made a repast fit for a king. Again the pipe and the night sounds, sleep and dreams.

Small bass that we could not use that day we put in a little pool in a spring-branch near. In the night we heard a commotion in the little pool and discovered, too late, that minks had eaten all our fish,* so our breakfast would be fishless.

The next day was not so beautiful. At 7 o'clock a thunder storm broke, deluging everything and raising the river so that fishing for the rest of the day was out of the question. However, we went out in the afternoon and killed 2 more squirrels for supper. That night we again slept well. The next day was bright and clear and the prospects were good for fishing. During the day we caught 14 small mouth bass and crappies and 2 channel cats.

Next day we returned, arriving home about sunset, to resume the stern realities of life.

* This incident is almost identical with one described in "The Minks' Festival," published in December, 1899, RECREATION.—EDITOR.

THE THINGS I LOVE.

W. S. JONES.

I love the woods; its solitude
My senses holds with silent charm;
There soft winds sigh, and song birds fly
From tree to tree, secure from harm.

I love the lake, its murmurs wake
A happiness within my breast;
Its low, sweet song blots out the wrong
That warps the soul with vague unrest.

I love the flowers, and bless the hours
That I have passed with them, alone;
Their sweet perfume and brilliant bloom
In mem'ry cling, when years have flown.

I love a heart that does its part
With quiet, unassuming grace.
I love the streams, the sun's bright beams,
Sweet smiles upon fair Nature's face.

I love the sway of friendship's day,
Its ne'er to be forgotten hours,
And musing sweet, when mem'ries meet;
All these I love, for they are ours.

WHERE BASS ABOUND.

J. A. BOZMAN.

A party of my friends, summering at Lake Minnetonka wrote so enthusiastically about the good time they were

FROM MINNESOTA WATERS.

having that I determined to visit them I gathered up bag, baggage and fishing tackle and took the first train heading Northwest. Two days and nights of riding took me to Excelsior, on the lake.

My friends had arranged for a day with the bass, and to that end had engaged a steam yacht, together with a yawl and expert boatmen. Early the next morning we were aboard the yacht, headed for the upper lake, 18 miles distant, towing the yawl behind us. Our boatmen had provided 12 dozen frogs for bait. We arrived at the fishing ground about 9 o'clock, rigged our tackle and committed sundry unfortunate frogs to the mercy of their finny admirers. Black bass and pickerel jumped fairly out of the water in their eagerness to swallow those poor little croakers. By noon we had 48 fish.

Then we ate lunch on a little island near, and lounged on the rocks and sand. From 2 to 5 we fished again. We did not count our afternoon catch, but after reaching the hotel found we had 98 beautiful black bass, weighing in all 210 pounds. They were taken within' 6 hours by my friends, Mr. Martin and Mr. Reed, and me.

You apparently do not know that 210 pounds of fish is at least 3 times the quantity any 3 decent men should take in one day. You have displayed your bristles by loading your boat in this way and then boasting of it. I trust that if you are ever lucky enough to go where fish are plentiful again, you will stop when you get enough.—EDITOR.

Every day 13 million kind hearted girls sit down to the piano without a thought of the misery they are about to inflict.—Life.

"New York is a great city for a military parade."

"Why so?"

"There's hardly a street in which troops couldn't fall in."—Yonkers Statesman.

A MOUNTAIN SHEEP IN DOMESTICATION.

MOWRY BATES.

Photos by the Writer.

Enclosed find 2 photos of a young mountain sheep taken at Ouray, Colorado. This sheep is about 8 months old, and was found nearly dead when a few days old.

A HEALTHY BABY.

GROWING.

It was raised on a bottle, and is now of good size and healthy. It has perfect freedom, but prefers to stay at home instead of going to the hills.

AMATEUR PHOTO BY C. C. SPEIGHT.

HAIRY WOODPECKER.

Winner of 35th Prize in RECREATION'S 6th Annual Photo Competition.

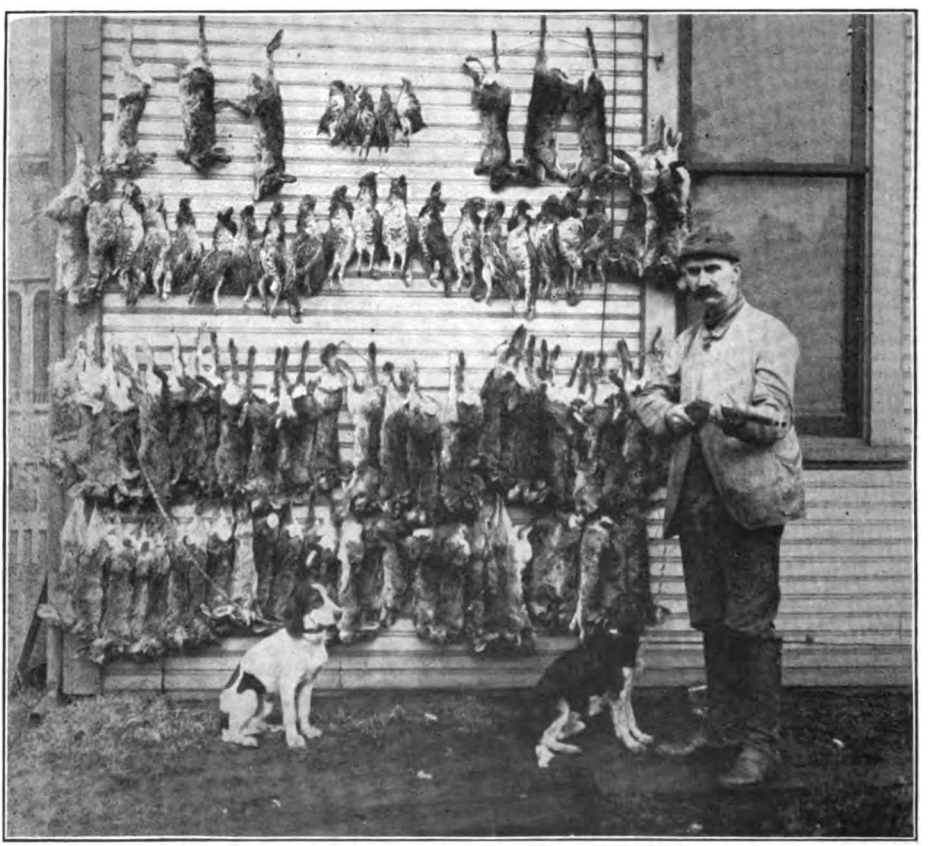
A DRUGGIST IN THE PEN.

This photo was given me by the man whose mug is shown beside the dead bodies of his 96 victims. His name is B. C. Newlon, a druggist of this town. In 4 days he killed 73 rabbits, 18 grouse and 5 quails and said if it had not rained all of one day he could have done better. Is he not worse than a hog?

K. C. M., Sharpsburg, Pa.

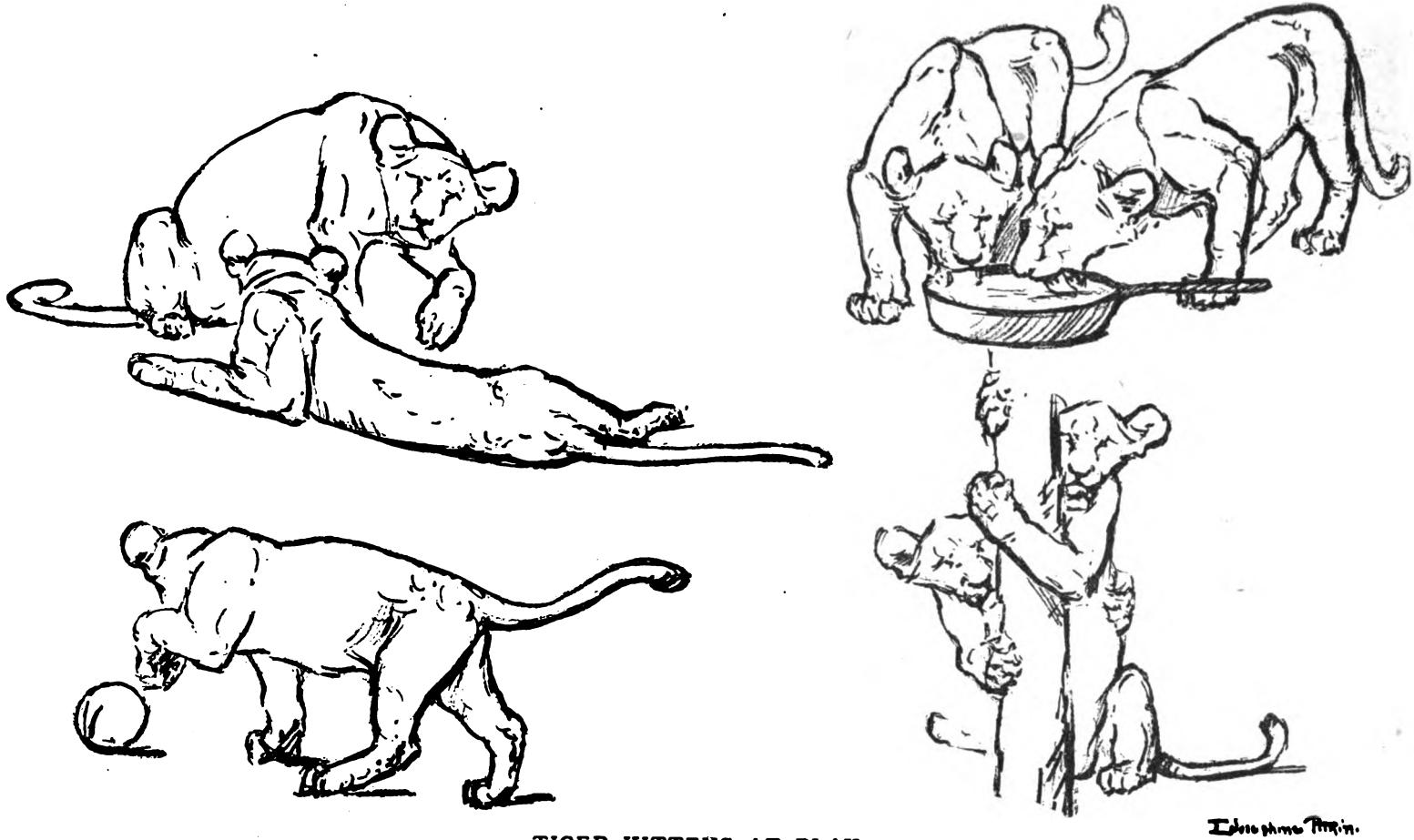
ANSWER.

Yes, he is meaner than any 4 legged hog that ever lived. I often wish, when I get such pictures as this, that the whipping post could be revived as a remedy for such bloodthirsty butchery as this man committed. Even Newlon's own dogs look as if they were ashamed of him, and I don't wonder. They ought to be.—EDITOR.

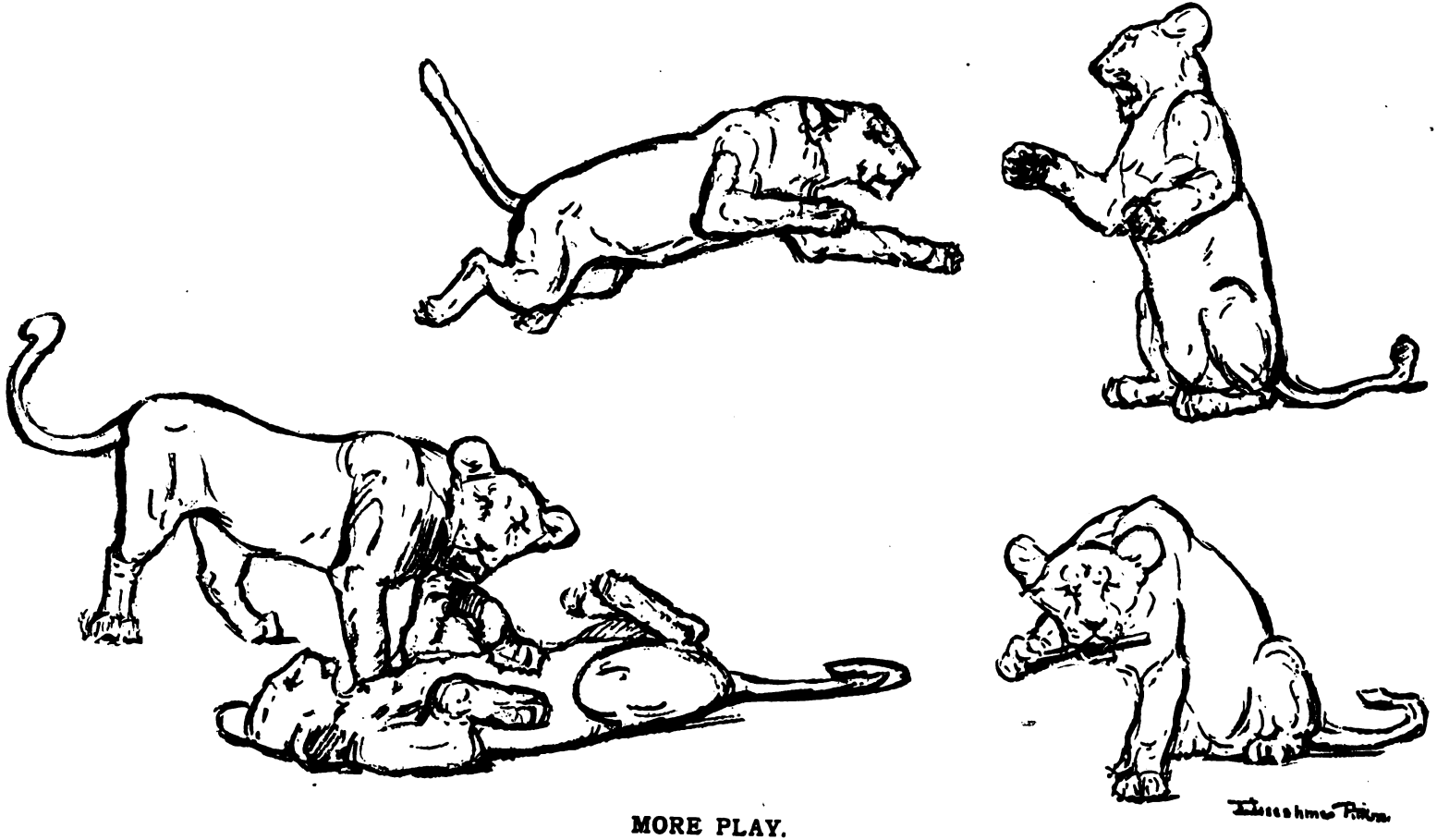


A SHARPSBURG RAZORBACK

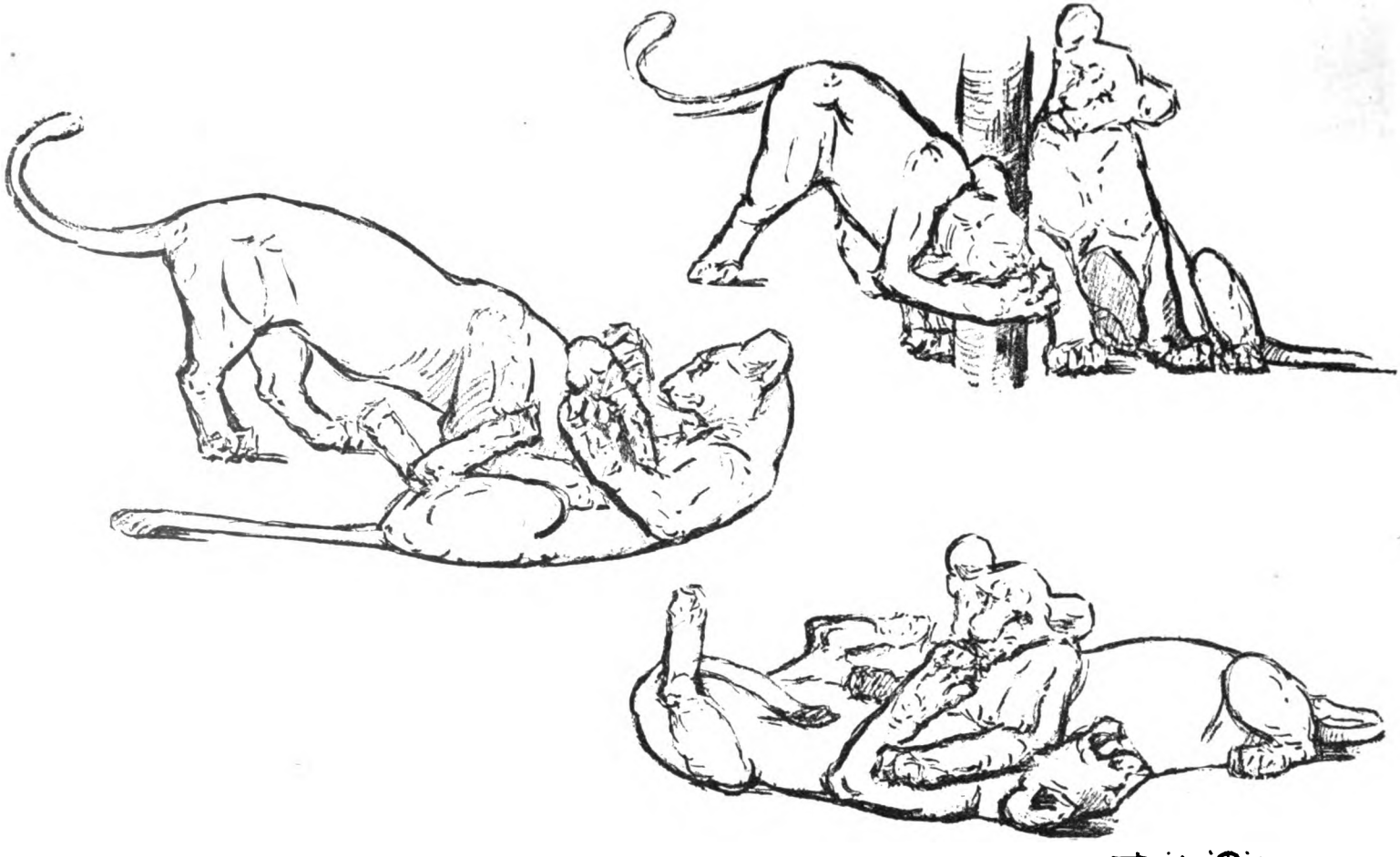
Half a loaf is better than no vacation.



TIGER KITTENS AT PLAY.



MORE PLAY.



PLAYING OVER-TIME.

Josephine Pirsson

TO IMPROVE THE SERVICE IN YELLOWSTONE PARK.

E. V. WILCOX.

The establishment and maintenance of the Yellowstone Park are commonly supposed to be for sentimental and æsthetic reasons strictly. The country included in its boundaries is not open to settlement or for economic use, and only 2 or 3 men have retained holdings within this region, in a semi-private capacity. It seems, therefore, reasonable to expect that this, perhaps the most interesting park in the United States, should be managed in such a way as to preserve its timber, game, and natural wonders in as nearly their present condition as possible. It is necessary, in order that tourists may be able to visit the different parts of the Park conveniently, to build roads, which are suitable for wagons, to all parts of the Park which are of especial interest. At present the roads which may be said to be maintained in good condition simply cover the route along which the Yellowstone Park Transportation Company wishes to carry its passengers. This route includes merely 4 or 5 of the chief points of interest in the Park, namely, Mammoth Hot Springs, Norris Geyser basin, the Lower and Upper Geyser basins, Yellowstone lake, and the Canyon. If for any reason one desires to travel in other parts of the Park it is found extremely difficult to do so with a wagon. The road from Soda Butte to Yancey's is as rocky and as sidling as any road in the mountains, and the bridge across Lamar river, just below Soda Butte, is in a dilapidated and dangerous condition. This portion of the Park is possessed of much interest to tourists. The antelope along the Lamar river are as numerous and as tame as in any other part of the Park. The fossil forest and Big Specimen ridge are in themselves of sufficient interest to attract tourists. While it is true that the Transportation Company allows only 5½ days for their trip in the Park, and therefore can not travel over longer distances than the present improved roads, there are others to be considered besides the tourists who patronize this company. Of the 10,500 tourists who visited the Park during the past season, over 4,000 traveled by means of private conveyances, and a considerable number of such tourists entered the Park by Soda Butte, Snake river, and Riverside stations. None of these roads are in the condition in which they should be, until the tourist reaches the regular circuit, around which the Transportation Company travels. The tourists who visit the Park in private conveyances are not subject to the regulations of any transportation company, and they travel where they desire. In justice to this large body of tourists the roads which lead to other points of interest in the Park, aside from the chief features of this region, should be improved so that those points may be reached in safety.

One of the purposes for which the Park was established is the protection of game within its borders. Nearly all species of game within the Park are at present increasing in number, and this is a sufficient evidence that the protection afforded by the Park is more or less effective. Poaching occurs, however, every year, and may be carried on with comparative safety. It is absolutely impossible for 2 scouts to patrol 3,600 square miles of mountain country in summer, when the conditions of travel are best, much less in winter, when the whole country is deeply covered with snow. There are many trails which permit an easy entrance into the Park on all sides by means of pack trains, and these entrances can not possibly be guarded by 2 men. It is not practicable to impose the duties of scout on the soldiers of the Park, for several reasons. The soldiers do not remain any great length of time in the Park, and do not become thoroughly acquainted with the various trails by which hunters may enter. They are, moreover, as a rule, not satisfactory scouts, and do not understand the habits of game to an extent which would make it possible for them to locate the large bodies of game at different seasons of the year. Hunters may enter the Park by various trails on the North as well as by the road from Cooke City. On the West they may readily gain entrance by Miller Creek trail, leading from the Hoodoos, or by means of the trail from the North Fork of Stinking Water. On the South they may enter along the Yellowstone river, Snake river, and by trails at the Southwest corner of the Park. On the West there are several entrances, the most important being by the Madison and Gallatin rivers. It is manifestly impossible for 2 men to guard all these entrances. Hunters may enter by one trail, remain in the park 2 or 3 weeks, and escape with their game without the possibility of the scouts learning of their presence in the Park. At least 15 or 20 experienced mountaineers should be employed as scouts for the protection of game during the fall and winter months. At other seasons of the year a smaller number will be required.

Excellent grass is found in the valleys

of the larger rivers in the Park, and these valleys, including the famous Hayden valley, serve as the winter range for the big game which remains in the Park during the year. The protection of game in the Park requires that all this grass be left standing in order to furnish winter range for the game. It would naturally be expected that such would be the case. On the contrary, however, one can not help noticing throughout the Park that in all the meadows along river valleys the grass is cut for hay. Haying operations were in progress during the season of 1901 along the Yellowstone and a number of its tributaries, in Madison valley, Hayden valley, and a number of other localities. It was stated that this hay was being cut for the horses of the soldiers and of the Transportation Company. With regard to the soldiers' horses and the Government mules located in the Park, it seems almost ridiculous that an attempt should be made to practice economy by destroying the winter range of the game. The small quantity of hay which is required by the domestic animals belonging to the Government in the Park could easily be fed with hay bought in the open market and shipped to Cinnabar. From that point it could readily be freighted to the different stations where it might be required. The labor involved in cutting the hay and hauling it out of the valleys in the Park from which it is cut is great, and the quality of the hay is by no means so good as that which would be obtained in any market. It is not likely that anything is really saved, from a financial standpoint, by cutting the grass in the Park and depriving the game of their natural winter range. Why the Transportation Company should be given the privilege of cutting hay in the Park it is impossible to understand. This company has the most valuable franchise within the Yellowstone Park, and they can afford to pay for hay. The Yellowstone Park should be maintained for the pleasure of the citizens of the United States, not for the profit of the Transportation Company.

No mountain scenery, however great its original beauty, can fail to give an impression of desolation and barrenness when the timber is burned off. It is unfortunately true that the present arrangement for protection from fires in the Yellowstone Park is utterly inadequate. Fires occur within the Park as extensive and as disastrous as any of those which devastate the forests outside of the boundaries. These fires occur every year, and their results are in evidence in every part of the Park. Around Mammoth Hot Springs nearly all the good timber has been destroyed, and the result is an indescribable appearance of barrenness in this naturally beautiful locality. During the past season 3 forest fires occurred in the Park, 2 of which were the direct result of unextinguished camp fires. The other was from lightning, and was of only slight importance. One fire burned for a month, and destroyed enormous quantities of standing timber; while the other, which took rise in a camp fire, burned several square miles of good timber in the neighborhood of the Upper Geyer basin. It is evidently impossible for the soldiers to patrol the camping grounds in such a manner as to prevent these costly accidents. In fact, it may be doubted whether the duties of fire wardens should be imposed on the soldiers. This is not supposed to be a part of the work of soldiers, and they are not required to be especially fitted for this duty. Their patrol duties simply require them to ride from one station half way to the next station, where they meet the other patrol. They start out on their patrol in the morning, but not sufficiently early to inspect the camp grounds before the camping parties have moved on. These parties usually move very early in the morning, and of course travel in different directions. When the soldiers arrive on a camping ground and find a camp fire not properly extinguished, it is usually impossible to fix the responsibility in the case, for the reason that there is no evidence for identifying the offending party. If regular fire wardens were maintained in connection with the Park service it should be the duty of these men to visit camping grounds before the camping parties have left and see that camp fires are properly extinguished. In the evening they should visit the camping grounds and prevent fires being built too near standing timber or in connection with large dry logs. It would not require any large force to patrol the camping grounds in a thoroughly satisfactory and effective manner and thus avoid the tremendous destruction of timber which annually occurs within the Park. It thus appears that slight additions to the force of scouts and the establishment of a small force of fire wardens would, at a small cost, protect the Yellowstone Park against the greatest dangers to which it is at present subjected.

Why not present several of your friends each a year's subscription to RECREATION? They would thank you for it 12 times.

SHERIFF McFEE'S BIG BASS.

C. C. HASKINS.

Old Sheriff McFee was of fishing quite fond,
In lake or in brooklet, in river or pond,
And down at the tavern big yarns he would spin
But the fish being absent, his stories seemed thin
To Jonathan D., who said, says he,
"I don't take no stock in old Sheriff McFee."

Now Sheriff McFee of his tackle was proud
And boasting its virtues he spoke long and loud;
"Two hooks back to back are the catchers for me,"
Says the toothless old sheriff. "Oh! fiddle-de-de,"
Says Jonathan D. "Why don't he use three?
I don't want no hooks of old Sheriff McFee."

Once Sheriff McFee, after fishing all day,
Sneaked home through the alleys and every by-way,
For fear of the roast from the boys, don't you see;
When crossing his path there was Jonathan D.
"Ah! what luck to-day, sir, how many?" says he,
"Is that all you've got, sir?" says Jonathan D.

Says Sheriff McFee, "Yes, it has a bad look,
But a 7 pound bass carried off my best hook.
Up there by the willows, at Davis's dam,
He looked when he jumped like a 20 pound ham."
Says Jonathan D., "He's a wonder," says he,
"I'd jest like to catch him," says Jonathan D.

Now Jonathan D. e're the sun broke his nap
Went down the next morning to catch the big chap,
And silently baiting he made a sly cast,
When quicker than winking he had a fish fast.
Says Jonathan D., "So I've got you," says he,
"I'd like if the sheriff was jest here to see."

When Jonathan D. brought his fish to the land,
The language he used you can well understand
When I tell you his prize weighed a pound, just about,
And instead of a bass it was just a bull pout.
And Jonathan D. said, "I snummy," says he,
"That's the funniest bass that I ever did see."

And fast in its muzzle when Jonathan looked,
He saw where the sheriff the same fish had hooked;
For his "very best hook that the world ever saw,"
With a bit of the leader, was stuck in its jaw.
And Jonathan shouted, while dancing in glee,
"We'll have this bass stuffed as a roast for McFee."

Now Jonathan D. has a bar down in town,
And wishing to add to the sheriff's renown,
The fish when set up bore this legend, you see,
"A 7 pound bass weighed by Sheriff McFee."
And Jonathan he told the story to me
Of this fish that was weighed by the scales of McFee.

"So the President is the servant of the people, eh?" said the man from a foreign land. "It seems to me you treat him with a great deal of respect and consideration for a servant."

"Huh!" scornfully retorted the native born. "I guess you never lived in the suburbs."—Puck.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman.

HANDWERKER DISGRACES HIS CLUB.

Tunica, Miss.

Editor RECREATION:

If you have room in your roasting pan and some red hot grease, it will be a kindness toward the good citizens of Tunica county, Mississippi, if you will dump into said pan and grease one J. G. Handwerker, of Memphis, Tennessee. It is possible you will have to trim off a few bristles with your hatchet before he will go into the oven, but his case demands heroic treatment, especially as he is president of a gun club. His last offense againt humanity and the dumb creation was the killing of 135 ducks in one day.

Did he load the product of his slaughter on the train and sneak off home after this bloody day's work? No! There were 27 ducks left, so he remained over night and completed the work of annihilation the next morning.

The one redeeming feature in the case seems to be that members of the club of which he is president strongly condemn his action, and it is safe to say he will not be president next year. The killing of 50, 60, 70 or even 80 ducks in one day had occasionally been indulged in by some of the members, but it was left for Handwerker to bring home to them the enormity of their offense. The club is known as the Beaver Dam club, and their place is near a small lake a short distance from Evansville, Mississippi.

Game, such as deer, turkeys, quails, ducks and squirrels, was plentiful in this part of the country a few years ago, but the deerhound, the negro with the breechloader, who is at the same time a pot shooter, and such men as Handwerker, are, together, rapidly exterminating it. Mississippi has poor game laws, and such as it has are not enforced.

You are doing a great work in behalf of the hunted, and we will welcome your aid in this part of the vineyard.

Y. V. T.

J. G. Handwerker is secretary of the 3 most prominent hunting and fishing clubs having a Memphis membership. In 2 of the clubs 50 ducks a day is the limit. The other one, the Beaver Dam club, has no limit except what the decency of the individual member may determine. I am not a member of the latter, but one who is a member asked me to say to you that Mr. Handwerker recently killed 139 ducks at Beaver Dam lake in one day.

C. M. B., Memphis, Tenn.

On receipt of the foregoing letters I wrote Mr. Handwerker as follows:

I am informed that you recently killed 139 ducks in one day. Will you kindly tell me if this report is true?

To this letter Mr. Handwerker replied:

I regret to say that the report is not true.

J. G. Handwerker, Memphis, Tenn.

Thereupon I wrote a subscriber in Memphis, asking him if he could verify the report. He replied:

I have heard rumors that Handwerker killed a great many ducks in one day, but have thus far been unable to get definite information in regard to it. I will, however, investigate the matter carefully and report to you in person in a few days.

E. J. M., Memphis, Tenn.

I also wrote "Y. V. T.," saying that Mr. Handwerker had denied the charge. Following is reply:

Your favor of some time ago with reference to Handwerker's denial has had my attention. There is no question but that he killed the ducks, although I now understand he says the number was only 134. Dr. J. H. Hitt, of Clayton, Mississippi, says he heard Handwerker telling what he did with the ducks. I have talked with numbers of men who know that the deed was done, but as yet I have no positive evidence. Will keep hot on the trail, and when I land a man I know saw the ducks I will get his affidavit. You are at liberty to command me for any work which will result in the protection of game. I have already succeeded in getting many men to quit shooting ducks when they have enough for their own use, and I shall keep everlastingly at it.

Y. V. T., Tunica, Miss.

The foregoing letters are all signed by the real names of the writers, and are on file in this office, so that anyone interested, who will call here, may have an opportunity of seeing them. These gentlemen, however, desire that their real names be withheld from publication for the present.

"E. J. M." called here, according to promise, and assured me that Handwerker did kill 134 ducks in one day. He added that a large number of members of the Beaver Dam club had repudiated and condemned Handwerker's dirty work in an emphatic way, and that there was a prospect that the president who had disgraced the club would be invited to resign. Mr. E. J. M. intimated that in case Mr. Dirty-

work should refuse to resign, he would be deposed and publicly expelled from the club.

It is to be hoped that the Beaver Dam club will dispense with Mr. Butcherwerk's services at an early date. If it should not, it will be regarded as in a measure condoning his offense. The club can not afford to let this disgraceful piece of butchery go unpunished. If I remember correctly, the club has a provision in its by-laws allowing any member to kill 50 ducks a day. This is all wrong, and I said so editorially some 2 or 3 years ago. Thousands of other men have said so when hearing of this rule. That any member of this club, and more particularly the president thereof, should so utterly ignore all modern rules of decency and sportsmanship as to kill 134 ducks in a day is unpardonable. Let us see what the Beaver Dam club will do with Mr. J. G. Dirtywerk.—EDITOR.

FAVORS HOUNDING.

Lake Pleasant, N. Y.

Editor RECREATION:

In my opinion, still hunting, whether of deer or birds, falls little short of murder. Thousands of deer are wounded by still hunters and linger for days or weeks until death ends their misery. Deer should be put on the alert, as we put up birds. You would scorn to prowl through the woods and shoot a grouse on a limb or a woodcock on the ground. You want your pointer with you to give these feathered friends a chance for life and to find for you those you wound or kill.

I am opposed to the killing of does at any time or by any method.

Deer were increasing rapidly in this locality under the old law, but we can see a marked decrease in the last 2 years. They are much tamer since hounding was stopped and therefore are more easily killed.

I am a woodcock and grouse shooter. I use a 20-gauge gun and keep as fine a pair of pointers as there is in the State. No man enjoys the woods and hunting more than I do; yet if I were compelled to hunt woodcock and grouse without my dogs I should hang up my shot gun, as I did my rifle when the no-hounding law went into effect.

The last deer I killed I still hunted. I found him after a long and tedious stalk, quietly feeding on the margin of a stream. There he stood, without a suspicion of danger and without a chance for his life. Even as I fired I was ashamed of myself and when his brief struggle was over I would have given my best rifle to bring the poor animal back to life. I vowed I would never kill another deer by still hunting, and though that was 12 years ago I have kept my word.

What is the difference between that kind of murder and killing a deer at a salt lick? What is the difference whether the deer is feeding on salt or on lily pads? You will say the salt is put out to entice deer to a certain spot. I grant it; but how about the man who knows where the lily pads are and when deer are likely to feed on them? Wherein is he better than the man who kills deer at a salt lick? The hunter goes where he is likely to find deer, and the deer goes where he is likely to find food. Between them still hunting becomes the easiest and most certain method of deer killing.

I know whereof I speak. I have lived in the forest 12 years continuously, never taking more than a month each winter in New York city. There are lots of wild deer on my place. I frequently see them from my porches and often hunt them in my woods, but never with any thought of killing them.

My plan to maintain the supply of deer in the Adirondacks would be to forbid the killing of does at any time, make the open season on bucks September 1st to November 1st, and permit hunting with dogs. If the season was long there would be only a few hunters at a time in the woods, thus giving the deer more chance to escape.

Some hunters will ask, "How can we know whether we are shooting at a buck or a doe when we can see only a small part of the animal through the brush?" How can those men know whether they are shooting at a fawn or even a man? Cases of accidental shooting were rare in hounding days; now they are common. A still hunter here last fall saw the tan leggings of a fellow hunter. He fired at them and shot his friend through the leg. Then he fired twice after the victim fell and the leggings had disappeared, fortunately missing both times.

If a man can not see a deer plainly enough to distinguish whether it has horns or not he has no right to shoot. Three men in this vicinity had hairbreadth escapes from still hunters last fall.

Stop all still hunting, and by that I mean stop jacking, floating, stalking, watching at salt licks and crust hunting. Then give the hunter his dogs and a chance to kill a buck and get it.

When the guides hunted with dogs there were but 10 or 12 men here who were deer hunters. They had to keep their dogs the year around for a few weeks' hunting and only a few could afford to do that. Now nearly every man and boy in the community is a still hunter and guide. Anyone can learn a small section of the forest, build a bark camp, buy a rifle and boat and call himself a guide. All manage to kill deer, and all use every device known to the Indian and to the pot hunter. We

never heard of salt licks in this section until the dog was taken out of the hunt; now there are lots of them. Moreover, we have now probably 50 native hunters where we had 10 who kept dogs and were recognized guides. Unless a change is made, especially in the line of protection for does, the deer of the Adirondacks will, within the next 10 years, follow the buffalo of the Western plains. J. D. Morley.

GAME NOTES.

On the 13th of November last, I left Boston on my annual hunting trip in Northern Maine. From Mattawankeag I hired a team to carry me to James Millmore's, 15 miles North on the road to Sherman. The following morning I was ready for the woods.

I had engaged a good guide before leaving home, and found him on hand. The deep snow made it hard walking, but once in the woods and finding plenty of fresh deer tracks, we forgot all hardships by the time we started our first deer. We secured a buck weighing 175 pounds, with antlers spreading 20 inches. After bleeding, dressing and hanging him up we returned in time for dinner. The next day we were not so successful, but the third day we killed a handsome doe, weighing 150 pounds. As the 2 were all the law allows, I spent my time the next few days hunting other game, which was plentiful. Deer are abundant in Maine and will remain so if the present laws are enforced.

J. C. Gilbert, Whitman, Mass.

The excellent game laws of Maine are often praised, yet I have it from reliable authority that they are shamelessly violated all through the summer. Numerous camps are open all summer to accommodate anglers and many of those anglers feel that they would like to kill a deer. The guides have to feed their guests and it takes money to buy beef, so they are perfectly willing to have venison and rather encourage the killing of deer. Some of the camps have many visitors to feed and they have venison nearly every day in summer. I hope this will open the eyes of the Maine authorities and I am sure the L. A. S. will do all in its power to break up that practice. There is abundance of deer in Maine, but constant slaughter will soon show its ill effects. It is estimated 15,000 deer were legally killed in Maine in the season of 1899. Why do not all sportsmen fall into the ranks of the L. A. S.?

L. A. S. No. 2088, Baltimore, Md.

No wonder game is becoming scarce in Florida. Forest fires have been burning here for a month past, driving game into the open and destroying the nesting places of the quails. Hogs, too, are running through the woods destroying nests and eating eggs and young birds. What this State needs is paid wardens in every township. It is not well for private citizens here to thrust themselves forward in game protection work. Barns burn easily in this country and cattle die of strange ailments; but our native law breakers have not sand enough to go up against a State officer. We have a county non-resident license law which is never enforced. There should be someone in each township with power to grant licenses; then no one could dodge the issue.

L. A. S. 4118, Lake Como, Fla.

I killed a big elk the other day about 35 miles from St. Petersburg, and 2 others were killed on the same shooting ground by 2 friends. They were all beautiful animals and weighed about 900 pounds each. Our shooting society has, within an hour's railway travel from here, over 20,000 acres of shooting grounds well stocked with bear, elk, deer, hares, foxes, blackcock, woodcock, partridge, wild turkey and water fowl. If you have any American friends who want to come over for the shooting season we shall be glad to receive them. Our season's ticket costs $75. To-day we had shooting and in one round there were 10 elk and in the other 16. No elk was killed, though 2 unfortunately were wounded and escaped.

P. P. Boeckel, St. Petersburg, Russia.

I am on a ranch Southeast of Medicine Hat and near the Cypress hills. Reading matter is scarce here. When I found a copy of RECREATION I read it from cover to cover. Its stand in regard to wanton destruction of game should meet the approval of every sportsman. There is a game law here, but it is not enforced as it should be; and antelope, ducks and prairie chickens are killed in such numbers at times that they are wasted. Ducks breed here and are killed in the spring when nesting. Some white hogs gather the duck eggs to sell and to eat. The hard storms in the winter bring the antelope into and around the towns and ranches and they are easy to kill.

D. Ross, Medicine Hat, N. W. T.

A merchant named Letempt, of Rileyville, Saline county, was caught with 514 quails in his possession. It seems he started for Belleville with the birds in 2 trunks and a valise, checked as baggage. Information was furnished a constable at DuQuoin, who watched for Letempt. On the arrival of the train the constable boarded it and traveled with Letempt to Belleville. There Letempt suspected he was being watched, and hur-

riedly ordered the trunks and valise re-checked to Rileyville. The constable stuck closer than a brother, and again boarded the train with him on the return journey. Arriving at the Perry county line, the constable arrested Letempt, and confiscated the birds. Letempt was placed in jail and afterward furnished bond. He employed Wm. S. Cantrell, of Benton, as his attorney, and threatened a red-hot fight over the matter. The fines in this case at the minimum would have aggregated $12,850. But the case was compromised. Letempt paid a fine of $250, and his lawyer's and court fees probably amounted to as much more.—Pinckneyville (Ill.) Democrat.

I am employed on a ranch located on the trail of the elk and antelope on their way to and from the desert, and I see and hear of a great deal of unlawful killing. Elk are killed by hundreds along the trail from December 1st until May and June. Antelope the same. Many elk are also killed for their teeth. There is no game warden in this locality, so game is killed the year around, mostly by non-residents. I hear that a guide, not many miles from here, killed 30 elk last winter. I have also heard from reliable sources that elk are killed on the desert in large numbers and the meat is sold in Rock Springs and other mining towns along the railroad.

Tenderfoot, Pinedale, Wyo.

The game laws are little observed here. What grouse we have are killed as soon as they can fly. Deer, which were abundant until recently, are now scarce. Indians and many white men kill them at all seasons. It seems the intention of the Indians, when their reservations are thrown open to the prospector, to clear the country of game as quickly as possible. That has proved the case all over the State. Pintail grouse are becoming numerous in the Okanogan country. They are the only thing able to hold their own against the coyote and the pot hunter. There are few shot guns or bird dogs here, but every boy has a 22 rifle.

L. H. Doner, Republic, Wash.

I wish RECREATION could reach some of the fur hogs who boast in other sportsmen's periodicals of the big killings they have made. There are animals, such as minks, weasels and muskrats, that seem of no earthly use; but to kill raccoons, opossums, skunks and foxes simply for the price of their skins is utterly wrong. No creature renders the farmer more valuable aid as an insect destroyer than does the skunk. Our Legislature recognizes that fact, and has forbidden the killing of those animals under heavy penalty. No other creature does so little harm while furnishing as much sport to as many people as does the fox.

H. S. Wolf, Point Pleasant, W. Va.

Many sportsmen, when on hunting trips, are in the habit of shooting birds that can in no sense be considered game, simply for practice. Large numbers of gulls, terns, swallows, swifts, nighthawks, which in some sections of the country are known as bullbats, and birds of like character are destroyed every year. Without considering the æsthetic side of the question, such birds should not be killed from an economic standpoint. They are of great value to the public, and no true sportsman will wantonly destroy them. Sportsmen should practice and preach the gospel of protection at all times.

William Dutcher, New York City.

I have always hunted small game and observed the law, and I admire your platform of game protection. I have been in Northern Pennsylvania 3 years. Last year I got 15 grouse in the whole season. We had Lou Fleming, of Pittsburg, Pa., and other crack shots here last season for a shooting tournament. They stayed one week to hunt and the largest bag made was 5 or 6 grouse. It is hard to make a big bag here on account of the brush. Birds are plentiful. I contend that men who shoot too much in open season do less harm than is done by campers in close season. C. E. Karns, Kane, Pa.

Early last summer some animal began playing havoc with young chickens in this vicinity. As long as he confined his attention to the hen roosts of my neighbors I was content to suppose him a fox or a coon. When, however, he levied toll on my own flock, I determined to hold an autopsy that would leave no doubt as to the rascal's species. I procured 8 steel traps and set them along a trail leading to an opening in the poultry yard fence. The next day I found the robber fast in 2 traps, and I was as greatly surprised as he, for he was an 18 pound woodchuck.

L. H. Bower, Newfield.

I think A. A. W. never owned anything in the dog line better than a yellow cur, or he would not advocate the extermination of bird dogs as a measure to increase game. No real sportsman feels any more satisfaction in making a nice shot or a good bag than in watching the work of his pointer or setter. Moreover, ¼ of the birds killed are not recovered unless a dog is used. A. A. W. likens hunting with bird dogs to running deer with hounds. It appears to me much easier for a covey of birds to get out of reach of a bird dog than for a deer to get away from a hound.

H. A. C., Luzerne, Pa.

Fog was unusually prevalent here during the first part of January and, because of it, some of our hunters met with trouble. Three members of the Chico club got turned around on a duck marsh. At dusk, when tired, wet, cold and hungry, they reached a spot of dry land and decided to camp there for the night. What dead wood they could find made them a scanty fire around which they sat all night and talked of food, beds and such unobtainable things. When day broke they found themselves only a few yards from the county road leading to their homes.

Madge, Oroville, Cal.

A deer has been seen recently in the fields around Sanquoit and Clayville. The farmers' dogs, of course, give chase now and then and some men have, in spite of the law, taken guns and joined in the pursuit. The man who kills her, if she is killed, will be exceedingly sorry. We are bound to protect her if we can. It is the first deer that has been seen here in 30 years.

Does Norwood claim that the photo in January RECREATION is of live deer? If so, I want to quarrel with him.

W. J. King, Norwich Corners, N. Y.

I am much interested in the protection of game, and am anxious to see more stringent laws enacted and enforced. Grouse and squirrels are fairly plentiful here, but constant pursuit has made them exceedingly wild and is steadily reducing their number. Since the removal of protection from rabbits, they have been almost exterminated by ferreters. The sportsmen of this county favor a short open season on rabbits and would endorse a law making ownership of a ferret a penal offense.

Hunter, Catherine, N. Y.

Deer are plentiful and fair hunting can be obtained within 4 or 5 miles of this town. Excellent hunting can be found at Brompton lake, 15 miles from here. The best place, however, is 30 miles down the St. Francis river, at Drumhanville. Good grouse shooting can be found within 2 miles of town. Coons and red foxes are abundant. Black bear are also plentiful; a large number were shot in the fall of 1901. Ducks and geese are rare visitors on the river.

W. R. Damant, Richmond, Que.

Duck shooting here was good throughout the entire season. Canvasbacks were more plentiful than for a number of years, mallards were scarce, while widgeon, pintail and teal visited us in large numbers. Owing to dry weather and the lack of green food, geese did not remain here in any considerable number, as they did the previous season. However, many snow geese, checkerbreasts and honkers fed on the grain fields in Orange county.

B. C. Hinman, Los Alamitos, Cal.

I congratulate you on the good work already done and hope you will keep it up.

It seems there is no use in trying to get our State law on quails and grouse changed, more especially on quails. It is too bad, having the open season begin October 15 and close December 15. Many quails killed after Thanksgiving are not more than half grown. Pot hunters made our law; let us change it to November 15 to February 1.

H. L. Manchester, Tiverton Corners, R. I.

In March RECREATION someone told of a deer that ran into a building and lay down. Some men secured it, took it to the woods 2 miles away and turned it loose. The League of American Sportsmen ought to give those men a gold medal. I hope their pictures will be sent to RECREATION.

Geo. R. Dunahoo was evidently a tenderfoot and the old miner was filling him up with his road runners and snake yarn.

Mrs. Ben Morss, Cottage Grove, Ore.

Deer wintered well, and are fairly abundant. Mountain quails and gray squirrels are also plentiful. Smoke from the Iron Mountain copper mine and its smelters is killing all the timber and brush for miles around. It has already spoiled thousands of acres of our best hunting ground. This is a foothill and winter range country, and it is a pity that game should be driven away for the sake of a penny foundry.

C. E. Kimball, Stella, Cal.

Am a reader of RECREATION and a firm believer in its principles and work. Your roasting of game hogs is all right, and well deserved by them. We have some here who need browning. December 26th, A. Van Wicklen killed 68 coot and old squaw from a battery, and the weather being warm the next 2 days many of them spoiled. Still such men cry, "where is the game?"

Jasper Smith, Port Washington, N. Y.

I believe there are more quails to the acre in this part of the State than in any other place in the country. Since the law prohibiting the taking of game out of the State went into effect there has been no hunting except a little locally. In one of our orchards of 200 acres there were 6 bunches of more than 20 birds each. They should make a large crop for another year.

C. S. Perry, Menlo, Ga.

I disagree with J. N. Fisher, Jr., who, in February RECREATION, growls at the non-resident license laws. Take the Indiana law as an example. I am sure it prevented 1,000 Chicago shooters from visiting the Kankakee marshes, thus saving the lives of fully 10,000 ducks. Next to the stopping of spring shooting, a good stiff license fee is the best thing for the birds.

O. A. Corner, Chicago, Ill.

I think A. A. W. is wrong in contending that dogs should not be used in hunting grouse and quails. If he lived on Cape Cod, he would want a dozen dogs; and if he used them all he could not get over 6 birds a day. I own a good rabbit hound. I went out 6 times last winter, hunted all day each time, and my biggest day's bag was one bunny.

E. G. Harding, Harwich Port, Mass.

We have plenty of bears, deer, turkeys, grouse and squirrels in this part of West Virginia. Quails would be exceedingly numerous if they could find food in the winter. The rest of the year they thrive famously. Coveys of 20 and over are the rule. Scarcely any grain is raised in this country, which is probably the reason so many birds starve in winter.

Minter Jackson, Jane, W. Va.

As the result of a 5 days' hunt in the vicinity of Notch P. O., Pike county, last fall, I brought out a number of grouse, a 240 pound buck and a big doe. Incidentally I helped extinguish a forest fire. The game and fish wardens attend strictly to business in those parts. They are well supported by the residents and, as a consequence, game is increasing.

P. W. Hobday, Dunmore, Pa.

I saw Mr. Van Dyke's hunting stories in February RECREATION. They are stories, and no mistake. Any deer not instantly killed will run when hit if it sees the person who fired the shot. If a deer dies after being hit with a 22 caliber ball it is from heart disease. A healthy deer would run off with all the 22's the U. M. C. Co. could make in a month.

C. L. Patrick, Cedarville, Mich.

On my annual hunt last season in Northern Michigan, I killed 2 large bucks and a small one. We have a good game law now and I believe deer are increasing, for I never saw so many signs in the same length of time. RECREATION is doing good work. Keep on until every game hog is too ashamed of himself to grunt.

Reuben Fish, Freeport, Mich.

Ducks of many varieties, including mallards, greenheads, pintails and teal, were exceedingly abundant last spring. Even game hogs got all they wanted. It is a shame that ducks are slaughtered on their Northern flight. They are of little food value at that season, and every one shot then means 3 or 4 less in the fall.

C. E. H., Fulton, Ill.

I was among the first in the Adirondacks to stand for a non-hounding law. I was almost alone then in the North woods, but to-day consensus of opinion in the Adirondacks is against the dogs. There are more deer here now than for 30 or 40 years. I have seen scores of them within a few hundred yards of the house.

Mr. R. M. Shutts, Merrill, N. Y.

I should like to see RECREATION take up the fight against loose dogs in the close game season. Without doubt a few dogs running at large through the summer will destroy more young animals and birds than would glut a dozen game hogs. Will not the members of the L. A. S. take this matter into consideration?

R. W. Stout, Poolesville, Md.

Grouse were plentiful here when the shooting season opened last fall, but they were nearly exterminated when it closed. Quails are abundant, because they sold so low the market hunters could not afford to hunt them. Foxes, I am sorry to say, are also plentiful, and are destroying many birds.

Wm. Leigh, Wurtsboro, N. Y.

RECREATION is doing much good hereabouts. Keep pounding away and you'll get things right after a while. This State permits spring shooting at ducks, which is a mistake. It should at least cut out the month of April. That would result in a great saving of birds.

E. L. Cobb, Portland, Me.

Grouse are scarce in this part of Sullivan county, and becoming more so each year. Rabbits are numerous, but farmers kill them at every opportunity, claiming that they damage crops. Quails have increased wonderfully.

Louis Boettger, Jr., Callicoon, N. Y.

We have quails, prairie chickens, jack rabbits, cottontails, ducks, geese, brant, snipe, plover, minks, muskrats and wolves. There will be no open season on quails for 3 years. There are few game hogs here.

Roy Fryer, Plainview, Neb.

ALMANAC FOR SALT WATER FISHERMEN.

The following will be found accurate and valuable for the vicinity of New York City:

Kingfish—Barb, Sea-Mink, Whiting. June to September. Haunts: The surf and deep channels of strong tide streams. Baits: Blood worms, shedder crabs and beach crustaceans. Time and tide: Flood, early morning.

Plaice—Fluke, Turbot, Flounder. May 15 to November 30. Haunts: The surf, mouth of tidal streams. Baits: Shedder crabs, killi-fish, sand laut. Time and tide: Ebb, daytime exclusively.

Spanish mackerel—Haunts: The open sea, July to September. Baits: Menhaden, trolling—metal and cedar squids.

Striped Bass—Rock Fish, Green Head. April to November. Haunts: The surf, bays, estuaries and tidal streams. Baits: Blood worms, shedder crabs, Calico crabs, small eels, menhaden. Time and tide. Night, half flood to flood, to half ebb.

The Drums, Red and Black. June to November. Haunts: The surf and mouths of large bays. Bait: Skinner crab. Time and tide: Day, flood.

Blackfish—Tautog, April to November. Haunts: Surf, vicinity of piling and old wrecks in bays. Baits: Sand worm, blood worm, shedder crabs, clams. Time and tide: Daytime, flood.

Lafayette—Spot, Goody, Cape May Goody. August to October. Haunts: Channels of tidal streams. Baits: Shedder crabs, sand worms, clams. Time and Tide: Day and night flood.

Croker—July to October. Haunts: Deep channels of bays. Baits: Shedder crabs, mussels. Time and tide: Day, flood.

Snapper—Young of Blue Fish. August to November. Haunts: Rivers and all tide ways. Baits: Spearing and menhaden; trolling pearl squid. Time and tide: Day, all tides.

Sheepshead—June to October Haunts: Surf and bays, vicinity of old wrecks. Baits: Clams, mussels, shedder crabs. Time and tide: Day, flood only.

New England Whiting—Winter Weak-fish, Frost-fish. November to May. Haunts: The surf. Baits: Sand laut, spearing. Time and tide: Night, flood.

Hake—Ling. October to June. Haunts: Open sea surf, large bays. Baits: Clams, mussels, fish. Time and tide: Day and night, flood.

Weak-fish—Squeteague, Squit. June to October. Haunts: Surf, all tideways. Baits: Shedder crabs, surf mullet, menhaden, ledge mussels, sand laut, shrimp. Time and tide: Day and night, flood preferred.

Blue Fish—Horse Hackerel. June to November 1st. Haunts: Surf, open sea and large bays. Baits: Menhaden, surf mullet and trolling squid. Time and tide: Daytime; not affected by tides.

FOR ONE-ARMED ANGLERS.

Recently I was about to start for a day's fishing, in company with an acquaintance who has lost his right arm, when he warned me that I would have to bait his hook for him. He said he was accustomed to hire a boy or man to accompany him on his fishing trips to handle his bait for him. I went to a workbench near, and in a few moments I made a simple device which enabled him to put a minnow, worm or frog on his hook almost as easily as anyone else could. The device is simply a piece of straight grained oak, 14 inches long, 1 inch wide and ¼ inch thick, planed smooth, and sharpened to an edge at one end like a chisel. This sharpened end is split down about 3 inches. When the hook is placed in the split it is firmly held. The other end of the stick is held under the arm, leaving one hand free to place the bait on the hook. This idea is not patented, but is offered freely to all anglers who have temporarily or permanently lost the use of an arm.

Blue Spring creek is one of the best stocked trout streams in Missouri. This creek is but 6 miles long, flowing from Blue spring to the Merrimac river. It was first stocked with rainbow trout 5 years ago, and there have been specimens taken out weighing 4 to 6 pounds. The Merrimac river affords good sport in small mouth bass, pike, crappie, channel and blue cat, etc. The beautiful scenery adds to the enjoyment of a day spent on this stream.

About 2 years ago I first saw a copy of RECREATION. I have bought a copy every month since. It has taught me a great deal. Largely as a result of its teaching, I now have a conscience concerning fish and game. Last summer, while at my summer home at Macatawa, Mich., I built a canvas covered sail boat similar to the one described in August RECREATION. I departed from the description in some respects, but the boat was a success. It is 15½ feet long, 52 inches beam, and has 72 square feet of sail area. I used for planking ¼-inch pine, 1¾ inches wide, instead of 3-16-inch cypress, 3 inches wide. For covering I used 18 ounce canvas. For cockpit flooring I made an inch grating, in 2 pieces. This grating, the coaming and the narrow strip outside, just below gunwale are painted green; inside of cockpit and spars have spar varnish; canvas cover and rudder have 2 coats of white lead. The "White Duck" was generally admired by all who saw her.

Arthur O. Garrison, St. Louis, Mo.

HOW THEY RUN IN MICHIGAN.

We have excellent yachting and fair fishing in the Saginaw river and its tributaries. A 20 mile run down takes us to the bay and if the weather permits we can take a limited run on it. Our favorite run is up the river. We have the Tittabawassee, Shiawassee, Cass, Flint and Bad rivers, all navigable for boats of 3 feet draft or less, and all tributary to the Saginaw. The Tittabawassee is shallow and swift, and from June until September affords fine small mouth bass fishing, supplemented with an occasional 1 to 20 pound catfish. The others are clear and not so swift, surround-

ed by miles of marsh and woodland, furnishing fairly good trolling for big mouth bass and grass pike. From about September 1st to November 15th perch are caught in large numbers in both the Shiawassee and the Saginaw rivers. It is a sight to behold during our perch run to see the docks and river fairly alive with men, women and children of all ages, sizes and colors, from every station in life, and with every conceivable kind of tackle out for a few hours' sport with the little toothsome fellows. I counted 216 boats filled with anglers during a 6 mile run last September. Commercial fishing is prohibited in the tributaries, but in the Saginaw it commences November 15 and ends April 15. The annual catch is amazing. It consists of suckers, mullet, perch, rock bass, sunfish, wall-eyed and grass pike, bullheads and carp.

Commercial fishing has been the bone of contention between Saginaw county sportsmen and the market fishermen for several years. The latter have won out at every Legislature, except losing the tributaries 7 years ago; but the sportsmen have not lost all hope of abolishing net fishing entirely, as the Saginaw is the only inland stream in Michigan in which it is allowed.

We have miles of duck marsh, and overrun land practically does away with spring shooting here, as no waterfowl get here before the season closes, April 10th, except a few merganser ducks.

I thoroughly agree with Mr. W. L. Steward in February RECREATION relative to the destruction of small fish by herons and kingfishers. I also add the merganser, or sawbill ducks. A friend killed a heron and found about 30 little grass pikes in his pouch, and I have seen half a pint of little fish come from a merganser duck's mouth after he was dead and hanging head down.

Lee Mann, Saginaw, Mich.

MY TROUTING DAY.

It was an ideal spring morning and every thing foretold a delightful day in the woods. A turn in the trail leading down a steep incline took me to an old bridge beneath which flowed a crystal stream fed by many cool springs. There I expected to make my first effort at the trout.

Hastily adjusting my rod I approached a curling patch of white foam held back by a half submerged log, and made, with pork for bait, my first attempt to hook a brook trout. I cast the hook above the eddy and like a flash a streak of mottled beauty shot from beneath the log. With a vigorous jerk he was thrown clear of the water on the sand at my feet and in a moment he was mine. He was the first I had ever seen. A second cast was equally successful.

With varying results I fished the winding stream as its course led through almost impassable underbrush, occasionally throwing a trout high among the branches, entangling my line in overhanging limbs. Thus the hours passed unnoticed until hunger and fatigue reminded me that it was time to eat. Selecting an old tree trunk I spread my lunch and there in the quiet depth of the forest I ate. A half hour was given to rest during which a number of Canada jays assembled around me and protested at my long repast. A red squirrel ventured near, and, with curious eyes, gazed on the intruder. His curiosity satisfied, he scurried up a tree where he gave me an acrobatic exhibition among the branches.

The slanting sun admonished me to retrace my steps, so I started on the return, taking my time and fishing the most likely places. They yielded an occasional prize and at length I found myself back at the old bridge. There I took an inventory of my catch and found I had 14 trout. I was proud, mosquito bitten, happy; the happiness born of honest recreation and love of nature.

Dr. C. T. Thomas, Trout Creek, Mich.

CARE OF CANVAS BOATS.

I have never noticed in RECREATION any information as to the proper care of a canvas folding boat, or how to repair one. The solution, or preparation, on the outside of my boat has partly worn off.

L. A. Place, Chicago.

ANSWER.

If your boat requires waterproofing the best thing to use is common kettle-boiled linseed oil of a pure quality, which can be bought at any paint store. Use with the oil about ½ a cup of burnt umber, of desired color, to a quart of oil. Stir it well and apply with a brush, being careful to apply it only to the part which is worn. One coat is sufficient. Many people spoil their canvas boats by continually daubing them when the boats do not need it. This forms such a coating that it cracks the canvas when folded, and the waterproofing itself becomes so thick that it cracks. The canvas is then destroyed. Leaving the boat in the water or on the shore where the air gets to it does no harm. Neither does it hurt a boat to fold it and put it away, provided it is thoroughly dried before folding. To fold a canvas boat while the canvas contains more or less dampness and pack it away, will rot the canvas. Many canvas boats are waterproofed with a quick drying process which does not penetrate and fill the fiber of the canvas. Such waterproofing is not right and will not stand. It will quickly wear off from the surface and the boat will leak. The waterproofing should thoroughly fill the fibre of the canvas.—EDITOR.

WEST VIRGINIA WAKING UP.

Constable L. C. Jones, who was recently appointed by Gov. A. B. White as deputy fish and game warden for this section of the county, prosecuted his first case at Fairmont.

It was remarked by many at the time the appointment was made known that no better person could be found in the State to fill this position. His first victims were John Brown and L. H. Slater, young men living on the East side of the river. They were dipping for fish at a point below the first ward feed mill, when Jones went to the place, arrested them and took possession of the fishermen's outfit.

They were taken before Justice Bennington Saturday and were fined each $25 and costs. The defendants took an appeal to the circuit court and were released until court shall convene by each furnishing bond to the amount of $100.

The fish and game laws have been flagrantly broken for years in this State, especially the fish law. So open have the violations grown to be that fishing in the common and ordinary way, by hook and line, trout line, etc., have practically been abandoned, and the fish box, dynamite, etc., substituted.

Judge Mason instructed the grand jury to inquire closely in regard to the violation of the fish and game laws.

I am looking forward to the days when the L. A. S. will conquer and the bristlebacks will be extinct.

Clifford Merrifield, Riverville, W. Va.

CARP FISHING WITH A STEEL TRAP.

Some years ago my father received from the United States Fish Commission a new kind of fish known as German carp, and said to be choice. We stocked a new pond with them, and fed them regularly every day for 2 years. At the end of that time the pond was full of large fish; and I proceeded to angle for them. I soon found that no kind of bait was tempting enough to induce them to bite, and the frequent sight of a fin above the water soon made me desperate. I studied the ways of these carp, and found that they loved to suck at a lump of wheat dough. They would suck it all away, without once taking the bulk in their mouth. This gave me an idea, which I at once executed. I procured a large single spring steel trap and tied a piece of tin on the frame, so that when set the trap could not be approached from the bottom. I tied a lump of dough on the treadle, tied the trap on the line in place of the hook, set it, and held it out in the water a moment. There was a snap, a shower of bubbles rose to the surface, and I brought out a 5-pound carp, with his head mashed flat. In 30 minutes I had 30 pounds of fish, and ~~at~~ being a game hog I quit.

My thoughts when I attempted to eat those fish are not fit for publication; and I afterward blew up the pond with dynamite to get rid of the small carp which could not throw my steel trap.

Ed. C. Hill, Horse Cave, Ky.

HOW TO TREAT KINGFISHERS.

I have read with great interest a communication from W. L. Steward, of Monson, Maine, in regard to the killing of fish by the blue heron and the kingfisher. As to the heron, I can not say. My experience with him is limited; but the kingfisher is without doubt one of the most destructive enemies of the finny tribe. I have had ample opportunity to study kingfishers during my 3 years as superintendent of hatcheries at this station. There is continual warfare by kingfishers against fish during the spring and summer. We are compelled to kill hundreds of these birds. In spring, summer and fall I have often seen them dart into the ponds and come up with their bill run through a trout 4 or 5 inches long. They will also strike a large trout that they can not handle, and wound him. Then fungus will set in and the fish dies. I agree with Mr. Steward that a bounty should be placed on this bird instead of protecting him by law. I should also like to hear from persons who have had opportunity to study the great merganser and the water ousel. I have caught them both at questionable tricks.

C. W. Morgareidge, Wolf, Wyo.

MINNESOTA WATERS.

Your magazine is properly named. I never fail to read it. I note in February RECREATION that Mr. Stick, of Chicago, after successfully landing a 14-pound pickerel, was so delighted that he could fish no longer, returning home with joy. In this paradise for anglers, Minnesota, we usually find our craving harder to satisfy. Mr. B. and I take frequent drives during the season to the many lakes in our vicinity, and have yet failed to return with less than 20 to 30 bass of the choicest black variety. Many a 5-pounder has bent our light Bristol and made things hum before we had him in our landing net. Eight to 15 pickerel, weighing 6 to 15 pounds each, are common. Lake Mary has our preference, with its sparkling spring water, high wooded shores, abundance of fish. When we get on the croppie we simply pull up stakes and move on, as we find it monotonous to continually take them off our hooks. We have 6 lakes within a mile, and each has its own specialty to offer in the line of fishes.

O. S. Lowell, Watertown, Minn.

DEPENDS HIMSELF.

My attention has been drawn to an item in a late issue of RECREATION which is anything but complimentary to my friends and me. If you will do a little simple calculation you will see that your remarks are uncalled for. Seven hundred fish for 3 men in 8 days would not give them quite 10 fish to each rod morning and evening; and after 3 men and 3 guides satisfy their appetites there are not a large number of fish to carry home.

I am personally acquainted with your informant, B. R. W., Bear River, N. S., and our party are fly fishermen, not pot hunters and bait fishermen like himself, nor have we been known to fish through the ice in the early spring. I have known this party and his friends to return from Flanders' meadow, White Sand lake, Stillwater, and the Mississippi, back of Bear River with a catch of much greater average than ours. I trust you will give this letter the same prominence you gave the item referred to.

R. W. Ambrose, Sydney, C. B.

NIBBLES.

I am interested to learn what fish hatching work is in progress or in contemplation for this year at the State hatcheries. Will you kindly favor me with a statement of what eggs are being hatched or are to be hatched and at what times these operations are likely to be in progress? Are catfish ever artificially propagated, and if so under what conditions.

C. J. Herrick, Granville, Ohio.

ANSWER.

The United States Fish Commission does not hatch any species of catfish, nor does any State Fish Commission, as far as I am informed. No method for the artificial propagation of any species of catfish has ever been developed. All the United States Fish Commission has ever done is to put adult catfish in ponds where the conditions are favorable and let them spawn naturally, then plant the young.—EDITOR.

Please say to W. B. Halcomb that one day when Pop Slyers and I were fishing at the mouth of Junalice river Pop lost several fish because, as I thought, he pulled too soon. I said to him, "The next time a fish takes your bait, let him go a while before you pull on him."

He let the next one have about 40 feet of line. Just then I had a strike that meant business. I said to Pop:

"I have him!"

"So have I" said Pop.

Our lines came in crossed and tangled. I said:

"Your fish got away"

"No, I have him; our fish got away."

When we got the fish in we both had him. Pop took him from the hook. He was a 2 pound bass.

F. K. Middough, Harrisburg, Pa.

Last August while camping on the Cuyahoga river, I caught a number of rock bass, but to our surprise we found, when cleaning them, that they had grubs about 1-16 of an inch long on their back bone. Can you tell me the cause of it? Will the grubs leave the fish when cold weather comes?

Harry J. Hopton, Youngstown, Ohio.

ANSWER.

Ordinarily, rock bass should not be infested with parasites of that kind. Probably the water was too warm, stagnant, or impure. Anything which lowers the vitality of fish renders them more open to attacks by parasites and disease. Very likely when the water becomes more suitable the fish will improve.—EDITOR.

No method of angling affords more sport than trolling, especially on a large body of water, free from weeds and other impediments to the free use of the line. I have spent many summers fishing in the vicinity of Petoskey, Mich. With a small launch and a line not less than 300 feet long, trolling at a moderate speed over good fishing grounds, such as are found in the many Northern lakes, is pure joy.

Burt lake, 20 miles Northeast of Petoskey, is one of the best bodies of water for this purpose. There trolling is employed almost exclusively, and pickerel are taken in great numbers, weighing 2 pounds and upward. A 28-pounder was the largest ever taken in that lake, to my knowledge.

T. P. Wagoner, Knightstown, Ind.

On the 7th of June, 1898, at 6 p. m., I left town with my wife and 2 little children for a trip of 2 days at Alligator Head. We went down at night because it was cooler. Having only very light wind we reached the Head next morning at 8. I went out on the wharf in the morning and caught 3 trout, 3 catfish and 1 shoemaker in 20 minutes. Spent the evening resting.

Next morning (9th), I fished from 9 to 11 and caught 7 trout, weighing 16 pounds, and 2 man-eating sharks. Tried for Jew fish (deep sea bass), but got none. In the afternoon we returned home with a fair, stiff, breeze; making the trip in 3 hours and 20 minutes.

H. M. Brown, Port Lavaca, Tex.

Persons who are interested in the habits of fishes should read the article about driftwood noises, in the Natural History department of this issue.

GUNS AND AMMUNITION.

Anybody can keep on shooting all day, but it takes a gentleman to quit when he gets enough.

SOME WORK WITH A SAVAGE.

I have had a Savage .303 about 4 months and after having given it a thorough trial I consider it far the best rifle I ever owned. It will not, of course, shoot so strongly as a 30-40, but that is its one point of inferiority. The .303 shell does not seem so apt as others to stick in the chamber and break off. The gun shoots right where it is held and at the same time is sighted coarser than a 30-40, which makes it easier to catch a quick sight.

When it comes to reloading, the Savage shell is a thing of beauty and a joy forever. I use a wire patched 180 grain bullet, made by the National Projectile Co., and 18 grains by weight of Savage powder. I have been able to prove, to my own satisfaction at least, that the wire patched bullet will hold up 50 yards farther than the regular soft nose, metal patched bullet. It will do quite as much crushing and tearing as any other bullet, yet does not damage the rifle.

Recently I shot a white tail buck at 281 paces. The bullet struck about 3 inches back of left shoulder point and about 1-3 the way from the back bone to belly line. It nicked one rib a little going in and cut 3 at point of exit, besides tearing away a lot of flesh from the right shoulder. The buck jumped once and went all in a heap. I don't see where the 30-40 could have done better. I started with 60 U. M. C. cartridges; 10 having burst, the rest are still good though some have been reloaded 5 times. I never clean my shells in any way except to wipe off with a greasy rag. I tried to reload 30-40's and on the first reloading 21 out of 60 shells broke at the neck.

I should like to know if any reader of RECREATION has seen a gun like one I know of, which was bought in Newport, R. I., about 45 years ago, for $25. It was a single barrel breech loader, though it had a ramrod and was often used as a muzzle loader. It was made for Western turkey shooting, with either balls or buckshot, and used the old percussion cap. It was lever action with an open space behind the flat-sided breech block, which was in 2 pieces, working on the principle of a wedge, so the harder the gun recoiled the tighter it was closed. The barrel was 12 gauge, about 24 inches in length, and was fastened to the stock by a bolt passing through the barrel from left to right. The stock was extremely long and straight, and the gun had a hammer about 4 times the ordinary size. The strangest feature in the make of this gun was a vent on the right side of the breech, just below the tube for the percussion cap, from which a stream of fire nearly a foot in length would issue every time the gun was discharged. This, the makers, whose names I do not remember, claimed made the gun burn more powder. Was this claim true? If so, why did not the shooting power of the old muzzle loaders increase when their percussion tubes became so badly burned out that enough gas would escape through them to blow the hammers to full cock every time they were discharged? If I remember rightly, the cartridges for this little gun contained 23 buckshot. For wild goose shooting I never saw its equal. I have seen it shot at a target against guns of all prices and bores, and never saw a gun that could equal it in range and effectiveness. Was it the vent in this gun that caused it to shoot with such tremendous power? The only objectionable feature I remember about the gun was its loud report. It roared like a small cannon; but when kept clean had no recoil, although it weighed only 6 pounds. Old Subscriber, Webster, Mass.

YES, HE PAYS 'EM.

I note that some wise men from the East are sending up a plaintive howl, claiming that the editor of RECREATION is paying his subscribers for saying complimentary things about him and about his magazine. I have no fault to find with this kick, for it is a good ad for RECREATION, and it is also true. Mr. Shields has paid me for saying nice things about his magazine, and for fighting on his side of the fence when any little Coquinian war chanced to come bobbing along; and I have no doubt he has paid thousands of others for like services.

This is how Mr. Shields has paid me. For only $1 a year he has furnished me a magazine from whose pages I can glean more real information on subjects dear to the hearts of sportsmen than can be found in any dozen other publications. This alone would be pay enough, but it is not all. He has ever treated me with uniform courtesy, and it is fair to assume that he extends this courtesy to all with whom he has any dealings, game hogs excepted. Courtesy is a good investment for anyone, and I respectfully recommend it to the careful consideration of the hasty-pudding folks.

Here is some more pay that I get. RECREATION, aided by the L. A. S., for whose birth and rapid growth Mr. Shields is responsible, is trying to save the game for

all sportsmen. This magazine has ever stood firmly for game protection, while its editor handles the game and fish hogs in a commendably vigorous manner. By this means Mr. Shields has made enemies, and has lost subscribers innumerable, but it is worthy of note that the circulation of RECREATION is rapidly capering upward, and right here I call the attention of advertisers to this fact. I am, of course, paid for saying all this; paid as enumerated above. When some of the big gun manufacturers and dealers pay their patrons in the same coin—courtesy, and a desire to please customers by furnishing the best goods, they will find it will pay, and that more cash will flow into their strong boxes. As to sportsmen receiving any pay, save courtesy and fair dealing, for booming RECREATION, there is nothing to say only that the lovers of gun and rod are gentlemen; and as gentlemen, they can stand with equanimity the insults of the howlers. Those sad eyed mortals who worry about pay would better go 'way back and stand on their heads till sufficient blood to properly work their brains flows down into their think-tanks.

Gentlemen of the plaintive howl, it is up to you either to quit the fight and retire from the field, or else to lay down your scalping knives and your poisoned arrows, and take up modern weapons of warfare. The methods and the weapons you are now using will not go in this era. The days of savagery are past, and real men do not now tomahawk their enemies either literally or verbally.

A. L. Vermilya, Columbiaville, Mich.

PREFERS THE 44-40.

All the various rifle calibers are good, and should be used for what they were designed by the originators. The way to make this department interesting and instructive is to write the facts as they are, the caliber of the rifle, the kind of ammunition and the distance the game was hit, and then let each reader judge for himself.

The 30-30 and 30-40 when used with steel or full mantled bullets are military arms, of course; but with soft pointed bullets their effect on big game is deadly. In face of the evidence that has been produced, any man who says the 38-55 is equal or superior as a game killer to the 30-40 stamps himself as ignorant and inexperienced. It also makes most sportsmen tired to read about the 25-35 making a hole 4 times larger than a 45. Those of us who have had experience with the 30's know such claims for the 25-35 are nonsensical. To my mind the 30 calibers should not be compared with black powder guns as they are entirely different. My favorite is the little 44-40, but I hate to see men ignore facts and set at naught the merits of an arm so powerful and effective as the 30.

The Winchester people do not say the 32-40 and 38-55 are the best all around cartridges. Those loads were designed for target shooting in the old Ballard rifle. They became popular at once and soon Stevens, Remington, Winchester and other makers built more target rifles for those calibers than for any others. Those cartridges hold nearly all the finest rifle records up to 500 yards; showing that the originators knew their business. But according to the Winchester tables the 32-40 and 38-55 as big game killers, are not in it with most of the cartridges named on that list. Most all the 38, 40, and 45 calibers shoot flatter, have a higher velocity and more penetration. The 40 and 45 calibers have a much larger diameter. It is not necessary for a hunting rifle to put 16 consecutive shots into a 2 inch circle at 200 yards. Killing power, not extreme accuracy, is the thing of prime importance. Penetration, diameter and striking power constitute killing power. The 32-40 and 38-55 do not possess those qualities to any great extent. We also must not forget that 90 per cent. of big game killed is shot within 200 yards, and almost any rifle will shoot with enough accuracy to hit game at or even beyond that distance. Many of the 40 and 45 calibers shoot well up to 2,000 yards. The Winchester table is both interesting and instructive, and every sportsman ought to get a copy and study it. If he can reason and does not forget the simple law of cause and effect, he must come to the conclusion that a large bullet that penetrates a goodly number of boards, must be a much better killer than a small one that penetrates fewer.

Wenzel Mashek, Kewaunee, Wis.

DENOUNCES MUTILATION.

Saylesville, R. I.

Editor RECREATION:

In reading the letters in January number by Terry Smith and W. W. Prentice, relative to the work of the 30 caliber rifle, I was filled with disgust at the mutilation recorded.

I own a 30-30 rifle which I bought some time ago, but have not yet used on game, and, in my present frame of mind, I shall not use it. For 6 or 7 seasons I used a 38-55 for deer shooting and found it a perfect rifle for the work. There are, of course, several cartridges of more or less similar power, which answer almost as well; but I caught the craze, sold my 38 and bought a "modern weapon." However, if I can not shoot deer without tearing 7 inch holes or disemboweling them, I will go out of the business.

Why a man need blow off whole sections of a deer's head in order to kill it I can not explain. These are simply hints as to what those articles described.

One writer says that after seeing 2 deer almost blown to pieces his guide became a believer in the small bore rifle! I have always thought the only use of a rifle was to kill; simply and cleanly kill. One might judge from many descriptions published within the last 2 or 3 years that total annihilation was the end to be attained. Possibly, in the near future, somebody may bring out a weapon which, at its discharge, will destroy every vestige of the game aimed at. Then the 30-30 will not be in it, and there will be a mad rush for the new gun because of its power.

I believe in using tools or weapons adapted to the work required. Undoubtedly the 30 has its place and its uses, but in its indiscriminate use, it becomes a danger because of the great surplus power exerted. Moreover, it is, and must always be, extremely wasteful of meat.

I am fully convinced that 4 out of every 5 of such rifles are as unnecessary for the use they are put to as a 12 inch naval gun would be. I have no excuse to offer for owning one myself except my anxiety to be recent. If ever I use my 30 on deer it will be with a reduced charge or low pressure powder.

I wonder if anyone else is tired of hearing about the wonderful, I call it horrible, work of the 30-30. L. A. Jordan.

GOOD LOADS FOR THE 30-40.

Having noticed a number of inquiries in RECREATION as to the best all around rifle, I recommend the 30-40 Winchester as being one of the best.

A good short range load for the 30-40 for target and small game is 9 grains Du-Pont shot gun smokeless loose in shell; 8½ or 2½ Winchester primer; and Mr. Beardsley's bullet, No. 3086, 101 grains, or the Ideal No. 30812, 113 grains, cast 1 to 10 and well lubricated. Seat bullet in shell just deep enough to cover lubrication, with no crimp. If bullets are loose in expanded shell, use a muzzle sizer. The sharp-pointed bullet will not tear small game so badly as the flat point. This load is clean and accurate and about equal in power to a 32-20. Another load which will do fine work and is somewhere near a 38-55 is 52 grains (Ideal measure) semi-smokeless ffffg. and a 220 grain lubricated wire patched bullet. Those bullets are perfection and are advertised in RECREATION.

A great deal of useful information in regard to reloading and reloading tools is contained in the Ideal Hand Book. A good plan for anyone using high power smokeless rifles is to keep an Ideal broken shell extractor at hand. They will save trouble, delay and bad words. But unless care and judgment is used in experimenting with smokeless powders a good insurance policy is the most important thing to have on hand.

I use Lyman receiver and ivory bead sights. The rear sight can be instantly adjusted to any load. Tell A. G. Burg, Livingston, Mont., that the Ithaca No. 1 or 2 is the best medium priced gun in the world. O. E. Raynor, Meadville, Pa.

A DOUBTING THOMAS.

In February RECREATION Mr. Van Dyke tells of his wonderful exploits with a Stevens Favorite. Why didn't he sign his name Van Winkle? Then the charitable might believe that he fell asleep on some mountain and dreamed that gun story. Think of a 22 caliber bullet containing 45 grains of lead, with a penetration of 5 pine boards, passing through the shoulder of a bull elk and breaking a rib on the opposite side. Think of his shooting 4 deer, all through, or near, the heart. Imagine, if you can, his loading and firing a single shot rifle 4 times at a running deer. Why is he not with Buffalo Bill? Then when he investigates he finds he has killed 4 deer with those 4 shots while thinking there was but one deer all the while. If Syracuse thought some of Mr. Van Dyke's other stories were fishy, what does he think of this later romance?

I have shot squirrels with a 22, but sometimes had to use 3 or 4 bullets to make a neat finish. Mr. Van Dyke gets a bullet stuck in the barrel of his 22 and blows it out with another cartridge. It bulges the barrel some. Then the poor little gun falls under the wheels of a wagon and the barrel is bent. Thrown away and left to lie outdoors several months it is finally restored to alignment and usefulness by being hammered over a log. "Good medicine for the crowbar, good medicine for the gun." Great!

Moral: Throw away your 30-40 and 45-70 guns and get a 22 for big game.

E. G. Moulton, Derby Line, Vt.

A CONVERT TO MODERATION.

I have been reading RECREATION regularly for some time, though I was guilty of throwing the first copy I saw under the table with the remark that I would not spend my time with such rot. I had grown up in a region where the chap that killed the most game was the best man. I shot 26 deer in 3 weeks one season, and thought I was a great sportsman, but after reading your publication a while I changed

my mind about it. Now I stand in line to protect game in every way possible.

Therefore, I was sorry to see the Marlin Co. and the Peters Cartridge Co. withdraw their ads from RECREATION. I know from experience that both concerns deserve hearty praise for protecting our game, as I will guarantee that anyone using their goods exclusively will be in little danger of getting roasted as a game hog. I was out with a party one fall for a duck hunt, and we were unable to kill enough for the camp table, though ducks were plentiful. Four of us were crack wing shots, but we had no ammunition with us except Peters' Quick Shot cartridges. Last fall I used the U. M. C. New Club, and, although I am a Winchester partisan, I had to acknowledge they do execution.

My gun is an old timer and will not do good work with nitro powder, but makes some record breaking kills with New Rival or New Club black powder shells.

F. B. Lamb, Washburn, Wis.

REGARDING BULLETS.

In reply to Amateur, whose letter appeared in February RECREATION, I will say that lead bullets do not develop so great a velocity as metal patched bullets. A metal patched bullet will give 100 feet more velocity than a lead bullet with the same quantity of powder. Accuracy can not be maintained with a lead bullet at over 1,500 feet velocity. Another reason is that smokeless starts a bullet much quicker than black powder and a lead bullet is likely to jump the rifling at the breech.

Some people use RECREATION as they would a tin horn, to talk through. Do not write things that people will not believe. Mr. Van Dyke, of Red Lodge, Mont., tells of killing a number of elk and deer with one shot each from a Stevens *22*. He says he shot deer at 75 yards running straight from him and the little *22* put a bullet through the heart of every one. The Stevens must have excellent penetration.

There are a number of good shot guns, but the Winchester '97 model excels them all. With mine, I have put 310 No. 8 shot into a 30 inch circle at 40 yards. My load was 3 drams powder, 1 ounce shot. With shot spreaders in the same load I can put about 175 pellets into the same target.

I gave wire patched bullets a trial in my 38-55 last fall. They are excellent for all but game killing. They do not expand on striking bone.

M. C. McGowan, Lawrence, Mich.

PENETRATION OF THE SAVAGE.

In March RECREATION we came across a letter written by R. M. C., Red Lodge, Mont., in which he mentions that the Savage Arms Company claims the Savage rifle will shoot into 50 inches of pine boards. As R. M. C. mentions the 30-30, we take this opportunity to explain that it is our .303 full jacketed bullet cartridge fired from a Savage rifle which penetrates 50 inches or more of clear pine. We had an exhibition at Detroit, Boston and New York shows, in which there are pine logs showing this extent of penetration. The bullets have traversed the wood end-wise, which is a greater test than across the grain, the wood being stronger end-wise, and more power being required to crush the fibers than if the bullet were going across the grain. We have in some instances secured better results than 50 inches, but sometimes the bullet will not reach so far as that, owing to some extra resistance in the fibers of the wood. We have noticed that if a wood contains much rosin it will materially reduce the penetration.

Savage Arms Co.

PETERS' FRIEND DISAPPROVES OF HIM.

Dover, N. H.

Peters Cartridge Co.,
Cincinnati, Ohio:

Dear Sirs:—I think you are wrong when you accuse Mr. G. O. Shields of doing you an injustice. The fault is probably with the extractor of the gun being worn or the springs weak. It certainly is not with the shells, because I have a Winchester and have shot at least 1,000 new Victor shells in it. I shall be in the market later for a lot of your goods and expect to have large sales. I consider the Peters goods equal to any on the market.

Yours truly, L. C. Hunt.

SMALL SHOT.

For ducking I use a 6½ pound Claibrough, full choke. It will kill at 75 to 80 yards. Those who claim that black powder is superior to smokeless, taking everything into consideration, are mistaken. There are good and poor smokeless powders. The *2* best are Dupont and Laflin & Rand. I find Winchester Blue Rival shells with Laflin & Rand smokeless a load which can not be bettered, and it is within reach of all. I am with you in your struggle against the game hogs. We are troubled with a few here.

S. E. Sangster, Pt. Perry, Can.

In looking over recent numbers of RECREATION I find no mention of Stevens' Ideal rifle No. 44. I have one, chambered for the *22* long rifle cartridge, that I have given a thorough test. It will shoot short and long cartridges accurately up to 100 yards. When weather conditions are favorable it will, using the long rifle cartridge, do good work at 200 yards. For squirrels, rabbits and other small game

this weapon is not excelled by any other single shot rifle in the market. Any one wanting a first class gun at a moderate price should select a Stevens Ideal.

A. L. Fritts, Olpe, Kans.

Is there a 22-7½-45 cartridge made with smokeless or semi-smokeless powder? If so, who makes it? If there is such a cartridge, have any of your readers tried it, and if so, with what results? I have just bought a 22 Winchester R. F. rifle and think it all right. I have a 44 C. F. rifle I bought last fall. Though fitted with Lyman sights, it does not come up to my expectation. I am going to sell it and get either a Winchester 30-30 or a Savage 303. Which of the 2 has the flattest trajectory?

G. M. Miller, Montreal, Que.

What shell and load would you use in a Forehand single barrel for ducks?

What is the velocity of a 32 calibre rim fire cartridge fired from a Stevens Favorite?

E. F. Gillespie, New York City.

ANSWER.

The velocity of the 32 short rim fire is about 980 feet a second; the 32 long rim fire, 1,025 feet.—EDITOR.

In a Forehand single barrel gun, for ducks, I should use U. M. C. or Winchester No. 4 shot.—EDITOR.

I should like to give Mr. Jones, of Slate Hill, Pa., the benefit of my experience with guns. I have owned 2 Colt 12 gauge, 1 Claibrough 10 gauge, 2 Greener 12 gauge and 2 Greener 16 guage guns. I used all more or less for game and trap shooting, and while the 16 gauge was not quite so effective in trap shooting it was an ideal field gun. The last 16 I worked was an ejector Greener, and I used it with the greatest satisfaction on quails, snipe, and ducks all through the South.

E. C. Hall, Ashfield, Mass.

I use a 32-40 Winchester for deer and for that purpose prefer it to all other calibers. I shot 4 deer last season, securing 3 of them. The other I could have got had there been a tracking snow. I fired twice, hitting him back of the shoulder and in the hip. He continued running, and as the wounds soon stopped bleeding, I could not follow. Of the others 2 dropped instantly and the third ran not more than 6 or 7 rods. My favorite for larger game is the '76 model, 45-75 Winchester. Louis Luder, Caro, Mich.

Which is the best way to choke bore a gun barrel for hard and close shooting? Is the taper choke bore as good as the full choke for nitro powder? In the former the barrel is cut true cylinder bore from the breech to within an inch of the muzzle. The muzzle is left about 1-64 inch smaller than the rest of the barrel. Will some one who has used the Winchester 30-40 on big game give me his experience? What is a good load for shore birds?

Warren J. Barlow, Wollaston, Mass.

I should like to know the tensile strength of the Winchester rolled steel rifle barrels. Can you tell me?

John Bowden, Spring Valley, Minn.

The question was forwarded to the Winchester people and they replied:

Nickel steel for high velocity rifle barrels we buy with an elastic limit of 80,000 pounds. Steel for black powder barrels we buy with an elastic limit of 40,000 to 45,000 pounds.

Winchester Repeating Arms Co.

I should like to find out whether the soft nose or the full metal cased bullet is the better for big game. I have had varying success with both. On one occasion I shot a wolf at 200 yards with a Winchester 30-30. The bullet, a soft nose, struck the backbone and did not pass through the animal. Out of 18 deer shot with hard nose bullets, in front parts, 11 ran ¾ of a mile to 3 miles. B. S., Ithaca, N. Y.

A year ago I wrote RECREATION asking advice about choosing a quail gun, and was urged to order an Ithaca 12 bore, 28 inch, weight 6¾ pounds left barrel modified, right barrel cylinder. I did so, and received a 1902 model Ithaca gun, with the new cross bolt and fore end ejector. I thank RECREATION for helping me find just what I wanted.

Northwest, Sioux City, Ia.

I use only Dupont smokeless powder in shot gun, rifle and revolver. While I have used nearly all other makes, I consider that the best in every way. Am now using U. M. C. smokeless shells altogether, and their metallics in my smaller arms. U. M. C. goods are simply perfection.

L. D. Whittemore, Redlands, Cal.

I have seen nearly all kinds of shot guns, and have owned a great many. Experience has taught me that there is no better shooting gun than the Ithaca. By ordering a gun from the Ithaca Co. you can get just what you want, and it will be the best of its kind.

O. J. Emerson, Kendallville, Ia.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its education and scientific value is multiplied indefinitely.

WHAT CAUSED THE TAPPING SOUND.

T. F. Covert, in March RECREATION asks. "What is it?" and the same question I have asked myself several times of late years while on fishing expeditions, but about 2 years ago I got my first clue to the problem, which came to me just as it came to Mr. Covert; the conditions being always as he states them in his inquiry. It is nothing more nor less than a poor, old, skinny, bony, dried-up, demented carp, or white sucker, the abomination of a true angler. I do not like the name fish hog, but I should be willing to acquire it if I could kill all the suckers and carp in existence, and I should be willing to be roasted by Coquina as thoroughly as he roasted my friend and neighbor, B. I. Jones, the duck shooter.

In the spring of '99 I was visiting in the vicinity of Buckeye lake, on the banks of Lake run. At that place the run has been washed out in 2 or 3 pools to the depth of 8 or 10 feet. There one spring morning I found myself before sunrise, and heard that tapping, or rather smacking, sound as it was on that occasion. These pools were shaded by several large American elm trees and the blossoms, falling into the water and being blown by the wind or carried by the waves, had gathered in large patches on the surface. These patches were surrounded by great, big, rawboned, slab-sided, dun-colored, flabby, bottle-nosed carp, weighing 3 to 15 pounds, their bodies half out of the water, sucking in those elm blossoms by the quart. In one patch I counted 13 of these abominable fish and I was frantic in my appeal for something with which to exterminate them. I would have given my kingdom and thrown in my best fishing rod as inducement, which, in fact, is worth more than my kingdom.

I ran to the house, about a quarter of a mile away, got one of Paddy Marlin's 30-something rifles and rushed back to wreak vengeance on those abominations. They were still at work when I returned. With care I aimed the gun at the biggest, rawbonedest, slab-sidedest, dun-coloredest, and let go. When the smoke cleared away the water was full of the red bellied whelks, but before I could get a stick and get any out in order to tramp them into the mud with my feet, they all came to life and disappeared. But then you know a Marlin is of no account anyway.

Some time afterward, when sitting on the bank of a creek, I heard that same tapping sound, and grabbing a rock I peered over the bank. That time I saw a poor, old, skinny, white sucker, belly up, on the under side of a root, sucking away for dear life and squirting the dirt and sediment through his gills as if it was good. A number of times since I have seen the same performance repeated. Of course I threw that rock at the sucker. What did you think I picked it up for?

Thos. H. Jones, Newark, Ohio.

About 5 years ago a number of us were camping out in the Eastern part of Iowa, along the Maquoketa river. One day while strolling along the bank of the river I heard just such a noise as Mr. Covert describes. There was a sandbar about 30 feet from the bank, running parallel with it, and at the lower end was a large pile of drift, connecting the bar with the bank. I examined the pool closely and failed to find a living thing in sight in the neighborhood of the noise, but, like Mr. Covert, I noticed that bits of drift bobbed up whenever I heard the noise. I waited some time, but finally went back to camp, wondering. The next day I visited the pool at a different hour and I saw at least a dozen turtles out on the logs, sunning themselves. They were what are commonly called snapping turtles. I visited the place many times, going up quietly, in order not to frighten the turtles, and watching them closely, but I was never able to determine whether or not it was the turtles that made the noise. I do not remember seeing a turtle out of the water when I heard the noise. I decided that it was one of their modes of feeding, probably gathering the snails or other animals that were on the under side of the drift. Now I, like Mr. Covert, would like to know positively what made the noise. I have never seen so many turtles in one place before or since and never heard the noise at any other place.

J. D. B., Colorado Springs, Colo.

From Mr. T. F. Covert's description of the tapping he heard, I have no hesitation in saying that it was caused by a fish of the sucker variety. When a boy, I was once fishing in the Sequachee river, at the foot of Cumberland mountain, in Tennessee. I had chosen a quiet, shady nook, an ideal place for fishing, but a poor place for fish, as I soon found. After a time I heard this same tapping, or sucking, sound described by Mr. Covert and determined to

investigate. Moving a little nearer the spot whence the sound seemed to come I soon located it in a mass of sticks and leaves collected by the current about a half submerged log. The water being clear I soon discovered fish. Going home I rigged up a small spear and returned. Stepping out on the log and waiting some time I secured 2 or 3 small fishes and then tried another place, with the same result. Just what kind they were I am not prepared to say, but I remember they all had sucker mouths and I am inclined to think they were feeding. I have heard them many times since. Anyone who will quietly approach a drift in a stream any day in summer and remain still a short time will be rewarded by hearing that sound.

F. F. Mottelen, Primghar, Iowa.

Some years ago, while fishing in the Iowa river, I noticed the peculiar noise mentioned by Mr. Covert, in a drift immediately above a fallen tree. On investigating I found that every time the noise was made a stick or a small piece of bark could be seen to rise and fall at intervals. I decided that the disturbance was made by a sucker. Wishing to be positive I placed a small hook on my line, baited it with an angle worm, placed a small sinker above the hook and lowered it into the drift 4 to 6 inches below the surface of the water, where it was in motion. In a few seconds I landed the fish, which proved to be a sucker. It is a question in my mind whether these fish feed on the decaying wood or the insects found therein, or whether they simply make the noise for pastime. I have been fortunate enough, once or twice, to see these fish sucking on the under side of a drift and their body is almost perpendicular in the water. If Mr. Covert will take time to investigate this matter, I feel confident he will have a counterpart of my experience.

C. L. Bowen, Fort Dodge, Iowa.

I read many magazines and newspapers, but none is more welcome than RECREATION. I may be able to throw light on Mr. T. F. Covert's perplexity. I have heard sounds such as he describes, and several times have traced them to what I think is the source. If Mr. Covert had thrust a fish spear through the debris he would most likely have impaled a fish of the sucker variety. These fish feed largely on the low vegetable and animal life that accumulates on submerged logs and drift material. I do not know just how they produce the sound. I have watched them while feeding and they seemed to attach the circular rim of their mouth to an object and then with a quick movement remove it. I am of the opinion that they attach their mouth to the object, and by producing a partial vacuum by suction remove the food and at the same time produce the sound referred to.

Ira Lamb, Atkinson, Neb.

The drumming or thumping noise heard by Mr. Covert was made by fish, sucking. A number of fishes make this noise, namely: the buffalo fish, the quillback or bony carp, the German carp, the redhorse and the different varieties of suckers. While buffalo fish and German carp suck almost exclusively in foam and drifted sediment, the redhorse, quillback or bony carp, and all the various tribes of the sucker species suck on logs, fallen trees, etc.; in fact, on any bulky article suspended in the water, on the bottoms of boats, etc. The sounds are easily distinguishable, the foam suckers making a nois somewhat resembling that made by a hog drinking swill, while the log or timber suckers make a distinct cracking, or thumping, noise. The redhorse makes a great deal more noise than any other kind of fish. He can be heard on still nights a distance of 200 to 300 yards along the river.

T. H. McKinley, Wheatland, Ind.

Say to Mr. T. F. Covert that the mysterious sound he heard was a sucker, feeding. Some years ago I was fishing in the Auglaize river, near where a log had lodged, above which a lot of drift had gathered, consisting of small pieces of bark, sticks, rotten wood, leaves and foam. Hearing that peculiar sound I soon located it and noticed that small particles of drift and foam about 2 or 3 inches square, rose each time. While I was watching, a neighbor came along with a gun and I called his attention to the disturbance. He was as much puzzled as I was. After watching it for some time he concluded he would try his rifle. He took careful aim and fired. In a few moments a large sucker floated out, with part of his head gone. If the listener is close he will notice a peculiar sucking sound accompaning the tapping Mr. Covert describes.

D. W., Delphos, Ohio.

I have often heard the sound described by Mr. Covert, when fishing for bass, which, by the way, is usually after dark, when the water is smooth and no noise is heard except what is made in the canoe. In paddling along by a lily bed I once heard the sucking, or picking, sound he said came from the drift stuff under the uprooted tree, and on investigating with a lantern I found that the noise was made by a black bass, with his nose just out of water, sucking flies off the edge of the leaves. When I hear that "gnashing of teeth" I forthwith send my white miller on its mission of allurement and am usually rewarded by a click, click, that sends a thrill along my

spine, even to-day when the ice is on all the waters.

E. C. Frost, South Framingham, Mass.

There are 4 kinds of fishes that make the same noise as a woodpecker, namely, the sucker, the redhorse, the carp and the buffalo. They get under a boom, bark, a barge, etc., and cause the noise by sucking. However, I have noticed that their tappings are slower than a woodpecker's. That is one way these fishes feed. I have had a good chance to know as I have seen them with half their bodies out under a houseboat and have heard the constant tapping. Some old rivermen claim they even pull the calking out of barges.

Albert Roberge, San Francisco, Cal.

In answer to Mr. Covert, in March RECREATION, I have heard that peculiar sound he speaks of, and have always found it to be made by the fish called sucker. If Mr. Covert were here and would take a run over the logs stored in the different bays on Black river he would find many opportunities to see and hear for himself. He would see suckers swimming alongside a log striking it with their mouth, thus producing the sound he spoke of. They swim on their sides while feeding among logs, and on their backs under driftwood.

Frank Schaller, La Crosse, Wis.

I used to fish a great deal and one day I was attracted by the same kind of noise described by Mr. T. F. Covert in March RECREATION. I investigated and found the noise came from just such a place as he describes. I watched a while and then dropping my baited hook where I saw the disturbance, I pulled out a large sucker. Whenever I saw a similar agitation going on thereafter I dropped my hook and pulled out another sucker. In time I caught 9. I have seen the same thing a great many times since.

N. H. Uttie, Elmwood, Wis.

The peculiar noise Mr. T. F. Covert heard under the foam, dirt, etc., in Little Beaver creek was caused by the common sucker. While I do not favor shooting fish, if Mr. Covert will take his gun next summer and shoot at the place where the movement of foam and the noise are I think he will get a sucker. I do not know why suckers do this, but think they are feeding. I find the noise they make is similar to that made by placing the tongue to the roof of the mouth and removing it forcibly.

J. Drueg, Elgin, Minn.

The sound referred to by Mr. T. F. Covert in March RECREATION was probably made by a turtle of some kind. I have several times heard similar sounds near old logs or where drift had collected and, on investigating, I have found one or more snapping turtles (*Emysaurus serpentina*) frolicking around and feasting on the insects which gather about such places.

C. C. Manley, Milton, Vt.

In March RECREATION Mr. T. F. Covert says he would like to know the cause of the pecking he heard while fishing. I have had similar experience and on investigating I found it to be the work of squirrels. Have since been told it was so. It attracted my attention while camping last summer and I, like Mr. Covert, thought it was a woodpecker. F. B. T., Syracuse, N. Y.

In regard to the tapping described by Mr. T. F. Covert, I have heard a sound similar to it and on investigation I have found it was made by turtles, feeding. They swim under moss, weeds, or such debris as Mr. Covert describes, with just the end of nose out of water, and snap at bugs, flies, etc., with a decided snapping sound.

Geo. E. Blackford, Algona, Iowa.

The noise Mr. Covert heard was made by German carp sucking the scum on top of the water and around logs, driftwood, etc. I have speared them in the act and have dropped a hook in their mouths. If Mr. Covert will be quiet while watching them he will often see their round yellow mouths taking the scum.

F. D. Gardner, Brodhead, Wis.

If Mr. T. F. Covert will watch closely the next time he goes near that driftwood I think he will find that the tapping sound he mentions is made by suckers or redhorse feeding on the old driftwood.

I. N. Hardy, Central City, Colo.

Say to Mr. T. F. Covert that those strange sounds he heard while fishing in Little Beaver creek are caused by suckers feeding on the moss and sediment that adhere to the drift.

Levi Ballard, Paonia, Colo.

The noise that mystified Mr. Covert was made by a fish of the sucker variety.

J. L. Whinery, Marshalltown, Iowa.

MURDEROUS CROWS.

In February RECREATION someone asks if any reader knows the habits of crows. In Indiana we have many crows. I am not a friend of the black thief, as we call them, because they steal the bait that we use to trap minks and skunks. Crows are wise and cunning. They are fond of young squirrels, birds and rabbits. I was brought up on a farm near heavy woods, where I could learn the habits of crows. I have seen an old female crow find a squirrel's nest with the young in it and catch them. She would stick her head in the nest, take them out, and feed

them to her young crows. I have seen a crow find a young bird on the ground, that was unable to fly, kill it, carry it off somewhere and eat it. I have also found old rabbits that had been killed by crows. I once tracked a rabbit out in a stubble field and found where it had made a place in a bunch of grass to sit in through the day. Later the same rabbit was caught and killed by crows, and all that was left were the bones to tell the story of Mister Rabbit. I have found many such cases in hunting rabbits.

H. C. Beahler, Rosland, Ill.

BREEDING FUR-BEARERS.

Can beaver, otter, marten, fisher and mink be bred in captivity? Would I be successful if I should corral about 500 acres, with creek running through the tract from a neighboring lake, put each species in a separate enclosure, so each would have a share of the creek, and give them their liberty? Would you advise me to keep the males from all the above or from any one of them? If I kill off 2-3 of the males each year would it be safe to let the remainder run at large among the females?

H. F. Shipley, Storlie, N. D.

ANSWER.

The animals named can be bred in captivity; but no man has yet found a way to breed them at a profit. Not being a prophet, I can not say whether you would be successful or not in attempting to breed fur-bearing animals on a tract of 500 acres. The only way to find out is to try it. During the season of bearing and rearing young the females should be kept separate from the males. At other times there would be no danger in allowing the 2 sexes to run together.—EDITOR.

FLIGHTS OF SNOWY OWLS.

I saw in April RECREATION a query from F. S. W., Elk Rapids, Mich., about the occurrence of the flights of Arctic, or snowy, owls. These flights are probably due to storms of especial severity in the Northern regions. About 5 years ago a number of these owls were taken along the Hudson river and in the Northern part of this State and New Jersey. Some of these owls were said to fish in the Hudson river, diving for their prey like the osprey. This year the birds appear remarkably numerous. The New York Zoölogical Society has received specimens from Minnesota and Long Island to the number of 10. Probably the most remarkable flight on record was about 1850, when some 60 of these birds were said to have rested in the rigging of a ship in the North Atlantic ocean. This story I have on good authority, it having been published in several standard works on natural history.

T. Barbour, New York City.

RODENTS EAT SHED HORNS.

The inquiry in March RECREATION by E. E. Munn regarding deer horns called to my mind several things I have noticed. In the spring of 1880 I passed through a grove of juniper and mahogany trees covering about 20 acres, that had been the winter quarters of a bunch of mule deer. At that time I saw at least 30 pairs of horns. A few years later I passed over the same ground, and was surprised to find only 2 or 3 horns, and they were almost entirely eaten by rodents. Since then I have noticed that a pair of horns left in the woods will be eaten in a short time. As deer are less numerous in this locality than they were a few years ago, it is hard to find any horns in the woods that have lain there longer than a year. I saw one deer killed in November with horns still in the velvet, and have seen a few deer carrying their old horns in April.

S. R. O., Klamath Agency, Oregon.

NATURAL HISTORY NOTES.

One day about noon I saw a peculiar object floating in the air a short distance away. It proved a large spider web, much resembling a parachute. About 3 feet below it was a spider, suspended by threads from the main body, which was about 2 feet across. I followed it on a run for over half a mile, but it kept above my reach, sometimes only a few feet, and at others fully 50. Finally at the top of a hill overlooking the Chemung river at least 150 feet, I lost sight of the little adventurer and his balloon, as he floated out over the valley. If others of your readers have seen spider balloonists I should be glad to hear of it.

J. B. Bray, Waverly, N. Y.

Chicago.—The Illinois Audubon society is going to strike a blow at the root of the fashion of wearing sea gulls and terns for hat decorations. The society has decided that moral suasion with the women is not effective, and that the people to get after are the dealers. Every millinery house in Chicago, wholesale and retail, is to be served with a notice that the selling of skins of gulls, terns and song birds is illegal under the law of Illinois. The name of each bird which it is forbidden to buy or sell will be given, in order that ignorance can not be pleaded as an excuse for law violation. A committee chosen by the directors of the society will visit the retail milliners, and after an inspection of the stocks will point out to responsible persons the birds which it is unlawful for them to sell. The committee will then request that the prohibited bird skins be returned to the supply house from which they were bought. If the merchants agree to do this they will avert prosecution.—Exchange.

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"	C. I. Smith,	"
Herkimer,	D. F. Sperry,	Old Forge.
Oswego,	J. E. Manning,	154 West Utica St.
Putnam,	H. L. Brady,	Mahopac Falls.
Schuyler,	G. C. Fordham,	Watkins.
Allegany,	G. A. Thomas,	Belvidere.
Schoharie,	O. E. Eigen,	Sharon Springs.
Warren.	Geo. McEchron,	Glen Falls.
Orleans Co.,	J. H. Fearby,	E. Shelby.

LOCAL WARDENS IN OHIO.

Stark,	A. Dangeleisen,	Massillon.
Franklin,	Brook L. Terry,	208 Woodward Av., Columbus.
Cuyahoga,	A. W. Hitch,	161 Osborn St., Cleveland.
Clark,	Fred C. Ross,	169 W. Main St., Springfield.
Erie,	David Sutton,	418 Jackson St., Sandusky.
Fulton,	L. C. Berry,	Swanton.
Knox,	Grant Phillips,	Mt. Vernon.
Lorain,	T. J. Bates,	Elyria.
Ottawa,	Frank B. Shirley,	Lakeside.
Muskingum,	Frank D. Abell,	Zanesville.
Scioto,	J. F. Kelley,	Portsmouth.
Highland,	James G. Lyle,	Hillsboro.
Allen,	S. W. Knisely,	Lima.
Hamilton,	W. C. Rippey,	4465 Eastern Ave., Cincinnati.

LOCAL WARDENS IN CONNECTICUT.

Fairfield,	George B. Bliss.	2 Park Row, Stamford, Ct.
	Harvey C. Went,	11 Park St., Bridgeport, Ct.
Fairfield,	Samuel Waklee,	Box 373, Stratford.
Litchfield,	Dr. H. L. Ross,	P. O. Box 100, Canaan, Ct.
Middlesex,	Sandford Brainerd,	Ivoryton.
New Haven,	Wilbur E. Beach,	318 Chapel Street, New Haven, Ct.
"	D. J. Ryan,	188 Elizabeth St., Derby.

LOCAL WARDENS IN MASSACHUSETTS.

Norfolk,	Orlando McKenzie,	Norfolk.
"	J. J. Blick,	Wrentham
"	S. W. Fuller,	East Milton.
Suffolk,	Capt. W. J. Stone,	4 Tremont Row, Boston.

LOCAL WARDENS IN NEW JERSEY.

Mercer,	Jos. Ashmore,	124 Taylor St., Trenton
Mercer.	Edw. Vanderbilt,	Dentzville, Trenton.
"	Roland Mitchell,	739 Centre St., Trenton.
Morris,	Joseph Pellet,	Pompton Plains.
"	Chas. W. Blake,	Dover.
"	Francis E. Cook,	Butler.
"	Calone Orr,	Hibernia.
Somerset,	G. E. Morris,	Somerville.
Sussex,	Isaac D. Williams,	Branchville.
Union,	A. H. Miller,	Cranford.
	C. M. Hawkins,	Roselle.
Warren,	Jacob Young, Reuben Warner,	Phillipsburg.
Monmouth.	Dory-Hunt,	Wanague.
Hudson,	A. W. Letts,	51 Newark St., Hoboken.

LOCAL WARDENS IN PENNSYLVANIA.

Jefferson,	John Noll,	Sykesville.
Perry,	Samuel Sundy,	Lebo.
Warren.	F. P. Sweet,	Goodwill Hill.
"	Nelson Holmes,	Cornplanter.
Juniata,	Clifford Singer,	Oakland Mills.
"	Ezra Phillips,	McAlesterville.
Venango,	G. D. Benedict,	Pleasantville.
Potter	Ita Murphy,	Coudersport.
"	Wiley Barrows,	Austin.
"	Chas. Barrows,	Austin.
Crawford,	Jasper Tillotson,	Tillotson.
"	Geo. T. Meyers,	Titusville.
"	J. B. Lamb,	Buel.
Cambria,	W. H. Lambert,	720 Coleman Ave., Johnstown.
Butler,	F. J. Forquer,	Murrinsville.
Allegheny,	S. H. Allen,	Natrona.
Beaver,	N. H. Covert,	Beaver Falls.
"	W. R. Keefer,	"
McKean,	C. A. Duke,	Duke Center.
"	L. P. Fessenden,	Granere.
"	Wm. Holsinger,	Stickney.
Lack,	Wm. Weir,	Moosic.
Carbon,	Asa D. Hontz,	East Mauch Chunk.
Cumberland,	J. C. Gill,	Mechanicsburg.
Wyoming,	Cyrus Walter,	Tunkhannock.
Tioga,	E. B. Beaumont, Jr.,	Lawrenceville.
"	G. H. Simmons,	Westfield.
Lycoming,	Jas. J. Brennan,	Oval.
"	B. D. Kurtz,	Cammal.
Delaware,	Walter Lusson,	Ardmore.
Montgomery,	L. C. Parsons.	Academy.
Bradford,	Geo. B. Loop,	Sayre.
Clarion,	Isaac Keener,	New Bethlehem.
Cameron,	Harry Hemphill,	Emporium.
Clinton,	M. C. Kepler,	Renovo.
Northumberland,	G. W. Roher,	505 Anthracite St., Shamokin.
Elk,	D. R. Lobaugh,	Ridgway,

LOCAL WARDENS IN MICHIGAN.

County.	Name of Warden.	Address.
Ottawa,	W. H. Dunham,	Drenthe.
Kalamazoo,	C. E. Miller,	Augusta.
Berrien,	W. A. Palmer,	Buchanan.
Cass,	Thomas Dewey,	Dowagiac.
Hillsdale,	C. A. Stone,	Hillsdale.

LOCAL WARDENS IN VIRGINIA.

Mecklenburg,	J. H. Ogburn,	South Hill.
King William,	N. H. Montague,	Palls.
Smythe,	J. M. Hughes,	Chatham Hill.
King & Queen,	R. D. Bates,	Newtown.
Louisa,	J. P. Harris,	Applegrove.
Henrico,	W. J. Lynham,	412 W. Marshall Richmond.
East Rockingham,	E. J. Carickhoff,	Harrisonburg.

LOCAL WARDENS IN WYOMING.

Fremont,	Nelson Yarnall,	Dubois.
Uinta,	S. N. Leek, F. L. Peterson,	Jackson.
Carbon,	Kirk Dyer,	Medicine Bow.
Laramie,	Martin Breither,	Cheyenne.

LOCAL WARDENS IN TENNESSEE.

Sumner,	W. G. Harris,	Gallatin.
Stewart,	John H. Lory,	Bear Spring.
Robertson,	C. C. Bell,	Springfield.
Montgomery,	P. W. Humphrey,	Clarksville.

LOCAL WARDENS IN NEBRASKA.

Hall,	E. C. Statler,	Grand Island

LOCAL WARDENS IN NEW HAMPSHIRE.

Cheshire,	S. C. Ellis,	Keene.
Sullivan,	G. A. Blake,	Lempster.
"	J. W. Davidson,	Charlestown.

LOCAL WARDENS IN VERMONT.

Rutland,	Wm. J. Liddle,	Box 281, Fair Haven
Windsor,	F. A. Tarbell,	West Bridgewater.
Orleans,	E. G. Moulton,	Derby Line.
Essex,	H. S. Lund,	Granby.

LOCAL WARDENS IN ILLINOIS.

Rock Island,	D. M. Slottard.	12th Ave and 17th St., Moline.
Iroquois,	J. L. Peacock,	Sheldon.

LOCAL WARDENS IN OKLAHOMA.

Kiowa and Comanche Nation,	A. C. Cooper,	Ft. Sill.

LOCAL WARDENS IN IOWA.

Clinton,	D. L. Pascol,	Grand Mound.
Pattawattamie,	Dr. C. Engel,	Crescent.

LOCAL WARDENS IN WASHINGTON.

Okanogan,	James West,	Methow.
Stevens Co.,	Jacob Martin,	Newport.

LOCAL WARDENS IN UTAH.

Washington,	S. C. Goddard.	New Harmony.

LOCAL CHAPTERS.

Albert Lea, Minn.,	H. A. Morgan,	Rear Warden.
Angelica, N. Y.,	C. A. Lathrop,	"
Augusta, Mont.,	H. Sherman,	"
Austin, Minn.,	G. F. Baird,	"
Austin, Pa.,	W. S. Warner,	"
Boston, Mass.,	Capt. W. I. Stone,	"
Buffalo, N. Y.,	H. C. Gardiner,	"
Cammal, Pa.,	B. A. Ovenshire,	"
Charlestown, N. H.,	W. M. Buswell,	"
Cheyenne, Wyo.,	J. Hennessy,	"
Cincinnati, Ohio,	B. W. Morris,	"
Coudersport, Pa.,	I. L. Murphy,	"
Cresco, Iowa.,	J. L. Platt,	"
Davis, W. Va.,	J. Heltzen,	"
Dowagiac, Mich.,	W. F. Hoyt,	"
East Mauch Chunk,	Pa., E. F. Pry,	"
Evansville, Ind.,	F. M. Gilbert,	"
Fontanet, Ind.,	W. H. Perry,	"
Ft. Wayne, Ind.,	W. L. Waltemarth	"
Great Falls, Mont.,	J. M. Gaunt,	"
Heron Lake, Minn.,	K. C. Buckeye,	"
Hollidaysb'g, Pa.,	H. D. Hewit,	"
Hopkinsville, Ky.,	Hunter Wood,	"
Indianapolis, Ind.,	Joseph E. Bell,	"
Jerome, Ariz.,	Dr. L. A. Hawkins,	"
Johnsonburg, Pa.,	W. J. Stebbins.	"
Kalispell, Mont.,	John Eakright,	"
Keene, N. H.,	F. P. Beedle,	"
Kingfisher, Okla.,	A. C. Ambrose,	"
Lake Co., Ind.,	Dr. R. C. Mackey,	Rear Warden.
Loganpsort, Ind.,	E. B. McConnell,	"
Ludington, Mich.,	G. R. Cartier,	"
Mechanicsburg, Pa.,	Dr. J. H. Swartz,	"
Minturn, Colo.,	A. B. Walter,	"
New Albany, Ind.,	Dr. J. F. Weathers,	"
New Bethlehem, Pa.,	Isaac Keener,	"
Penn Yan, N. Y.,	Dr. H. R. Phillips,	"
Princeton, Ind.,	H. A. Yeager,	"
Reynoldsville, Pa.,	C. F. Hoffman,	"
Ridgway, Pa.,	T. J. Maxwell,	"
Rochester, N. Y.,	C. H. McChesney	"
St. Paul, Minn.,	O. T. Denny,	"
St. Thomas, Ont.,	L. J. Hall,	"
Schenectady, N. Y,	J. W. Furnside,	"
Seattle, Wash.,	M. Kelly,	"
Syracuse, N. Y.,	C. C. Truesdell,	"
Terre Haute, Ind.,	C. F. Thiede,	"
The Dalles, Ore.,	C. B. Cushing,	"
Walden, N. Y.,	J. R. Hays,	"
Wichita, Kas.,	Gerald Volk,	"
Winona, Minn.,	C. M. Morse,	"

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C. H. Ferry, 1720 Old Colony Bldg., Chicago, Ill.
Hon. Levi P. Morton, 681 5th avenue, New York City.
H. Williams, P. O. Box 156, Butte, Mont.
D. B. Fearing, Newport, R. I.
E. H. Dickinson, Moosehead Lake, Me.
Lorenzo Blackstone, Norwich, Conn.
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W. B. Mershon, Saginaw, Mich.
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J. Stanford Brown, 241 South 5th street, Reading, Pa.
W. H. Smith, Bryn, Mawr, Pa.
E. B. Smith, Bourse Bldg., Philadelphia, Pa.

There are thousands of men in the United States who should be life members. Why don't they join? Will someone please take a club and wake them up?

SENATOR HOAR WORKS WITH US.

Washington, D. C.

Editor RECREATION:

I have your letter transmitting to me copies of 6 resolutions adopted by the League of American Sportsmen at its annual meeting, and I have given them my careful attention. I shall do my best to comply with the desire of your League that the destruction of our wild animals, such as elk, moose, buffalo and antelope, be prevented. I shall also do my best to prevent their destruction, extermination and slaughter by leagues of sportsmen. I have no respect whatever for the pursuit of birds, and gentle, harmless wild creatures, like deer and antelope, as they strive to escape their persecutors, with broken wings and legs, hunted with dogs, and tortured with deadly fear, which, I suppose, is the cruelest torture of which animal nature is capable. I hope that the animals will not be suppressed and that the sportsmen will.

Geo. F. Hoar.

The resolutions which Senator Hoar refers to were printed in April RECREATION, so that my readers are already familiar with them. Senator Hoar is well known to all reading Americans as a staunch friend of the birds and wild animals. His objections to the methods of sportsmen are well taken, and his opposition to the killing of birds and animals under the name of sport is shared by many thousands of good people. I, however, recognize the fact that it is impossible to abolish the use of firearms as an adjunct of outdoor recreation. It is impossible to entirely stop the killing of birds and animals as an adjunct of sport. We have greatly reduced the killing, and that is what the League of American Sportsmen was organized for. We have almost totally wiped out the brutal side hunt which prevailed so generally up to a few years ago. We have nearly stopped the sale of game. We have abolished the millinery traffic in the plumage of song and insectivorous birds. We have shortened the season of killing in nearly all the States, and have, in many States, limited the number of birds and animals which any man may kill in a day. Therefore the venerable Massachusetts Senator must agree that the League has done a great work, and thus far must approve it. In fact, he has told me in private conversation that he does approve it. We are indebted to him for supporting nearly every measure which the League has put forward for the protection of birds and wild animals; and while we can not agree with his radical views as to prohibiting all killing, we value him and honor him for what he has done in our behalf and in behalf of the wild creatures he so dearly loves.—EDITOR.

WHAT A MONTANA MAN SAYS OF THE ANNUAL MEETING.

J. M. Gaunt has returned from Indianapolis, where he represented Montana at the annual convention of the League of American Sportsmen. Mr. Gaunt reports a most enjoyable trip and session of the League, and returns a much more enthusiastic member of the League than ever before.

"Although I have been a member of the League several years," he said, "I never before realized how great and powerful an organization it is. It has had a remarkable growth in membership in the past year and it is a great power in shaping needed legislation for the protection of game of all kinds, song birds, and insectivorous birds.

"The matters of probably the greatest interest to Montana sportsmen on which the League took action were concerning the deportation of the Cree Indians to their native land, Canada, the project of making all forest reservations game preserves, and the adoption of a resolution, calling on the Indian department to direct that no Indian shall be permitted to leave a reservation bearing arms.

"One of the most interesting features of the meeting was the reports of progress made in the enforcement of the Lacey game law. Dr. Palmer, who is in charge of this enforcement, requests all sportsmen to notify him by telegraph of any violation of the law, and on receipt of such notice he immediately instructs the United States marshal who can most easily do so to confiscate the game illegally killed, shipped or stored, and to arrest those violating the law.

"Action of the League that was particularly gratifying to the Western delegates was the decision that the next meeting, to be held next February, shall be in St. Paul. Each year the meeting place is moving Westward, and we may in time get it to Montana.—Great Falls, Mont., Tribune.

I am sending out from my home 40 or 50 circular letters to my sportsmen friends in able replies to some of them. I expect to have the application of our representative in the State Legislature, Mr. Hagenbuch, in a day or 2. We intend if possible to enroll 200 names in this county. We have set our mark high, but we want to make this the best protected county in the United States. Mr. Gleason will help us.

A. C. Thatcher, Urbana, Ohio.

THE LEAGUE DID IT.

There are a lot of pot hunters in Johnsonburg, Pa., who for many years have held a side hunt about Thanksgiving time. Some months ago a good sportsman in that town stirred up others of his kind and sent in 41 applications for membership in the League. A local chapter was organized and League posters were put up throughout the county. League literature was liberally circulated among the pot hunters, and the result is that the customary Thanksgiving side hunt was cut out last year. Yet the editor of the A. D. G. H. predicted 4 years ago that this League would not "accomplish any important achievement."

FORESTRY.

EDITED BY DR. B. E. FERNOW,
Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes thirty years to grow a tree and thirty minutes to cut it down and destroy it.

THE FOREST, FISH AND GAME COMMISSION.

The annual report for 1900 of the New York State Forest Commission was issued some time ago from the Government printer at Albany. The report of the Commission itself is brief, not quite 3 pages, but is supplemented by reports of the superintendent of forests, and a lengthy extract from the report of the assistant superintendent.

The matter of most interest in the Commission's report is its reference to "extensive experiments in tree planting, made by the Commission, which have shown that at a remarkably small expense these barren places can in time be replaced by a healthful and valuable forest growth."

Anyone consulting the reports of the superintendent of forests and of his assistant superintendent contained in the same volume, will smile at the basis for the statement of the Commission. For there we read, that the "extensive experiments" carried on by the Commission consisted in the planting in the Catskills of 6,000 little seedlings of pine and spruce, a gift of the New York State College of Forestry, which, with the greatest stretching, could not cover more than 4 acres of ground, and which were planted by the assistant superintendent and his assistant with a few friends at a "planting bee."

No wonder that under such conditions, the plant material a present, the labor gratuitous, the expense was small.

The College of Forestry has for 3 years been engaged in this kind of planting, has planted 150 acres of brush and waste land besides 105 acres of cut-over land, and set out altogether over 230,000 seedlings; has large nurseries established to furnish the plant material and has sold to the Commission 420,000 seedlings to continue its experiments. The cost of planting seedlings can hardly be kept below $6 to $10 an acre, although by sowing the cost may be considerably reduced.

The condemnation of the wood alcohol or acetic acid industry, which the Forest, Fish and Game Commission indulges in, while advocating the cutting of spruce for wood pulp, is, to say the least, inconsistent. If the industry is a nuisance, it will be proper to condemn it; but to suppress it because it uses small hardwoods is peculiar. The wood alcohol manufacturer is to the hardwood industry what the paper pulp manufacturer is to the softwood industry. Both use or can use small stuff, and it is the utilization of the small stuff resulting from cleanings and thinnings and limbage in general that makes forestry at all possible. The dry distillation of wood, which is also the modern method of charcoal manufacture, is an industry that needs encouragement and extension in proper direction. It does no injury to the forest; in fact, it is essential for the utilization of forest rubbish. It is right to restrict all industries which are a nuisance and which actually do damage; but to single out the acid factory, the necessary and highly utilitarian concomitant of the hardwood industry, is most erratic and unjust. To recommend the preservation of our forests for industrial purposes on one page and then to summarily condemn the manufacture of charcoal, wood alcohol, pyroligneous and acetic acid, etc., on another is a most inconsistent position.

The Commission recommends in one place that "scientific conservative forestry" be applied to the Adirondack forest, and in another recommends the "prevention of the cutting of hardwoods for commercial purposes." If this is forestry, it would be as well to leave the constitutional amendment preventing all cutting just as it is, for an indefinite period of time. The practice of forestry under such circumstances would be little better than poor lumbering, and worse than the let-alone policy which is now in force. It seems a pity, also, to prevent the cutting of hardwoods for "commercial purposes," and not for any other purpose, if there is any.

Perhaps the Commission has overlooked the recommendations of the working plan of Township No. 40, made for the Commission by the Bureau of Forestry of the United States Department of Agriculture. This working plan recommends the cutting of softwoods down to certain diameter limits, for purposes of revenue making, but with silvicultural accompaniments. It also recommends the "utilization of all mature and defective hardwoods," whenever it can be done profitably, and suggests the construction of a mill, a dam, a railroad and acid and other factories, if need be, to aid in the process of judicious utilization. In fact, the report concedes that the better practice would be to remove the hardwoods first and the softwoods afterward.

Well meaning people often shed tears needlessly over what appears to be denudation. It is often a good plan to cut the forest and burn over the soil in places

where large masses of duff have accumulated. This duff, undecomposed, is mechanically unable to start a healthy crop of coniferous seedlings. It is often necessary to expose the mineral soil to insure regeneration. It is only in particular portions, which are necessary for protective purposes, that this process of treatment would be detrimental, as on all the mountain tops, rough mountain sides and lake shores, which should perhaps be left untouched.

The truth of the whole matter is, apparently, that neither the Commission, the Legislature, nor the people of the State of New York know just what they want in reference to the Adirondacks, and the advice of the Governor recommending caution until a definite policy can be evolved is good. Nothing is more detrimental to the practice of forestry than constant change and uncertainty. After a definite policy is once decided on, then the proper move would be to stick to it in spite of public opinion, and to take the money used in the publication of voluminous, beautifully illustrated reports for the employment of a trained, well organized body of professional foresters, not merely natives of the region in which they are to work, to put this policy into execution, in spite of what hotel men, campers, guides, hunters or other individuals may think. The preserve belongs to the whole people of the State of New York, who have paid for it by taxation, and not to the few who live or go there.

NEWSPAPER PAP.

The New York *Herald* for Sunday, February 23, contained the following interesting note:

"New York State has given deep offense to the Italians, and to persons of English birth living in this city, and it is said the matter has been, or will be, called to the attention of the 2 foreign governments. The offense was committed in the last report of the Fisheries, Game and Forest Commission.

"In an article written by Dr. John Gifford on 'European Forest Scenes,' reference is made to the science of forestry in various countries. The Italian residents of New York take great offense at what is considered an uncalled-for attack on their home government. Referring to Italy, Dr. Gifford said: 'The people of Italy are, on the whole, good; but the government is bad.'

"It is asserted that this matter has been robbed of its lack of importance by the fact that it has been made an official document by the State of New York. The Italians, however, do not know just what action to take, as their representative is accredited to the United States and has nothing to do with the State Government. On the other hand, New York State can not well be called to account in a matter of this sort from Washington.

"Englishmen have a special grievance against Dr. Gifford. He seems to believe that the sons of old England are a degenerate lot. Referring to them he has said:

"'With the destruction of the forests in England have gone the stalwart men who once worked in them, to be replaced by the factory hand, knock-kneed, weak-lunged and sallow. Judging from what I saw during a recent visit to the big towns of England, I should say that England could better afford to pay $100,000,000 for foreign wood than to lose the broad shouldered and muscular men who once worked in her forests.'

"Thus far Dr. Gifford has not been called to account and has volunteered no explanation of the remarks."

The above was probably written to fill an aching void. Dr. Gifford has volunteered no explanation because none is needed to the person who reads his article with any degree of care. To call the "Italian people good and the government bad" is, indeed, a peculiar offense. The writer of the newspaper squib forgot to notice that the offense to England was quoted from an article by an Englishman, for which he received a prize in England.

THE PRESIDENT ON FOREST PRESERVATION.

While there is still among the public at large a considerable misconception of what forestry and forest preservation involve, as is evidenced by the unwarranted attacks on the methods of the College of Forestry in managing its demonstration forest, President Roosevelt, in his annual message, put the matter in such simple and thoroughly intelligent words that everybody should learn them by heart:

"The fundamental idea of forestry is the perpetuation of forests by use. Forest protection is not an end of itself; it is a means to increase and sustain the resources of our country and the industries which depend on them."

No word of comment is needed.

Investigation shows that the Northern dwarf mistletoe is common on the black spruce in the Adirondacks. It is parasitic, causes deformity of the tree and in the aggregate does considerable damage. The large bunches which it causes are called witches' brooms.

PURE AND IMPURE FOODS.

"What a Man Eats He Is."
Edited by C. F. LANGWORTHY, PH. D.
Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

LILY BULBS EATEN BY CHINESE.

Though we are accustomed to consider lilies as plants for ornamental value only, the bulbs and flowers of several species have long been used as articles of food by the Chinese and other orientals. Of these, *Lilium glehni* forms the chief vegetable diet of the Ainu, an aboriginal tribe now confined to the islands of Hokaido, but *Lilium tigrinum* and *Lilium concolor pulchellum* are the 2 species most commonly cultivated by the Chinese as articles of food. A recent investigator found the bulbs of *Lilium parrum* in use by the Washoe Indians of Nevada, and those of *Lilium pardalinum* in use by Indians of Northern California.

From the early part of December to the latter part of August, according to a recent report made by Blasdale to the Department of Agriculture, there are found in the Chinese markets of San Francisco the bulbs of a species of *Lilium* which greatly resemble those of the well known *Lilium auratum*. These are sold at 10 to 20 cents a pound. They are all imported from Canton. The bulbs have proved identical with the ones sold by nurserymen under the name of *Lilium brownii*. This is apparently the only species sold by the Chinese merchants, as a large number of bulbs purchased at different times and from different dealers have invariably yielded plants corresponding to this species. Unfortunately the bulbs are often infested with mites, which, either primarily or secondarily, cause the death of the plant before it perfects its flowers. From a collection of over 100 bulbs only 10 perfect flowers were secured.

What seems to be the same species may also be obtained in a dry form throughout the year, and both this and the fresh bulbs are known under the name of "pak hop."

The dried bulbs, as shown by analyses, contain some 10 per cent. water, 5.6 per cent. protein, 63 per cent. starch, and small quantities of ash, etc. The fresh bulbs purchased in San Francisco contained much more water, and correspondingly smaller quantities of nutrients.

The Chinese regard lily bulbs more as a delicacy than as a standard article of diet, and the customary price is considerably above that of other vegetables in common use by them. It is said that they are regarded by the Japanese as an especially desirable food for invalids and convalescents. When used for this purpose the bulbs are only slightly cooked and are eaten with sugar. The bulbs sold in San Francisco, as far as was observed, were nearly devoid of the bitter principle which is reported to occur in several species of *Lilium*. When simply boiled, they formed a palatable food, and Blasdale believes that Americans would soon become accustomed to their use. The cultural conditions favorable to the production of *Lilium brownii* or of some of the other edible species are not difficult to find in our own country, though it is doubtful whether they can be grown as cheaply as our other commonly cultivated vegetables. One valuable feature of the bulbs is the ease with which they may be dried, the resulting product being quite as acceptable as the fresh bulbs. The value of lilies as ornamental plants under present conditions will doubtless prevent their extended use as food in this country.

Another unusual vegetable substance largely used as a flavoring ingredient by the Chinese consists of the dried flowers of *Hemerocallis fulva*, the day lily of our American gardens. This substance is known as "kam cham t'soi," or the "gold-needle vegetable." The flowers of *Lilium bulbiferum* and *Hemerocallis graminea* are also used as food by the Chinese. The dried flower petals contain some 10 per cent. protein and some 56 per cent. carbohydrates. When judged by their composition, they are seen to possess a fairly high food value. They are used, however, rather as a condiment than as an article of diet.

THE BLUEBERRY INDUSTRY.

Although from the earliest Colonial times the blueberry has been highly prized as an article of food, little attention has been given to the systematic exploitation of this fruit. In many regions of the Northern and Eastern United States, particularly in New England, New York, Michigan and the mountains of Pennsylvania and West Virginia, there are thousands of acres of land which are worthless for ordinary agricultural purposes. After the pine is removed from such lands, an abundant growth of blueberry bushes, alders, poplars, grey birches and spireas springs up. It is believed that by proper management of these natural blueberry fields large areas may be made to yield a handsome profit to their owners, and furnish employment to a large number of people.

At the present time these lands, for the most part, are considered public property,

and irresponsible persons, recognizing the fact that the blueberry crop is more abundant on young bushes which spring up after a fire, recklessly burn over vast areas, thus destroying valuable forests for their own selfish ends. As described by Professor Munson, of the Maine Agricultural Experiment Station, the method of harvesting blueberries is somewhat as follows:

The land is divided into several tracts, each of which is leased to some responsible party who assumes the whole care of burning, keeping off trespassers, harvesting and marketing the fruit. The owner receives, as rental, one-half cent a quart for all the fruit gathered. The pickers receive 1½ to 3 cents a quart; those who lease the land and haul the fruit to the canning factory, or to the station for shipment, one-half to one cent a quart; the rating being determined, in accordance with the market value, by the firm which handles the product. The fruit is all canned or shipped by one firm, which pays the royalty to the owner.

Every year a certain section of each lease is burned over. This burning must be done early in the spring, before the soil becomes dry; otherwise the fire goes too deep, the *humus* is burned from the ground and most of the bushes are killed. Many hundred acres on what should be the best part of the "barrens," as the blueberry lands are termed, have thus been ruined. Each section is burned every third year.

By far the largest proportion of the fruit is taken to the factories for canning. Early in the season, however, before the factories are opened, a considerable quantity is shipped, usually in quart boxes, to the larger cities, for use while fresh. With the exception of currants and gooseberries, blueberries will stand rough handling better, and will keep longer than other small fruits.

All the early fruit is picked by hand, and only the ripe berries are gathered. Later in the season, particularly on "old burns," that is, on areas which have not been burned over in some time, but which are to be burned the next year, the fruit is gathered with a blueberry rake. This is an implement somewhat similar to the cranberry rake in use on Cape Cod, and may be likened to a dustpan, the bottom of which is composed of stiff, parallel wire rods. The fruit may be gathered much more quickly and more cheaply by means of the rake. The bushes are, however, seriously injured by the treatment. In no case should the rake be used in gathering high bush blueberries. As the berries are gathered they are passed through a fanning mill before being sent to the canning factory; and again at the factory, they are submitted to a stronger winnowing. This is usually the only preparation necessary.

ON THE CANADIAN PACIFIC RAILWAY.

GERTRUDE F. LYNCH.

By whatever route you cross the continent, be sure that special attractions in the way of scenery will make the trip memorable; but it is safe to say that if you select the Canadian Pacific in preference to others, you will never regret the choice. Railroad traveling is, as a general thing, but a necessary evil between 2 certain goods—the place of departure and the place of destination. This general rule finds its notable exception on the Canadian Pacific, where the traveling itself is the all important consideration and the points of arrival and departure sink into insignificance, for all impressions and memories are for the time being blotted out by those created by the stupendous spectacles offered in this means of transit.

We, as representatives of RECREATION, boarded the cars of the C. P. R., at Vancouver. We were scenery-sated, for we had already crossed the continent and had spent weeks amid the marvels of the world. We believed that nothing could arouse our calloused sensibilities; we were sure we had not a thrill left in our whole nervous outfit. We did, however, look about the spacious car with its soft upholstery of restful color, note the quiet deftness of the attachés, as we were conducted to our section, and the general neatness of detail with satisfaction. One can easily exhaust one's power of enjoyment, but appeals to personal comfort are rarely made in vain. We determined, in the manner of *blase* travelers that, if we felt so inclined, we should ignore alluring prospectuses and turn our backs on the well advertised attractions of the route in order to enjoy the comfort and repose of our temporary home. No such inclination assailed us. Scarcely had the train left the station when the passengers began to leave the sleeper to seek the observation car in the rear. A few remained to keep us company, but they were soon dragged away by enthusiastic friends. We were the last to go, and following the example of the late comers, we remained the last. No one, I am sure, on that memorable trip displayed greater enthusiasm or has shown more unflagging zeal in reminiscence.

Through stupendous gorges, at the edges of canyons so deep that the head swims looking down, scaling mountains tipped with the everlasting snow, panting up grades so steep that 2 and 3 engines were brought into use, along the brink of yawning gulches magnificently colored, in gloomy snow sheds, reminders of the winters' wrath, we pursued our way. Words are inadequate to describe, they can merely suggest or perhaps invite. Nature, in this part of the world, has been generous in her

wrath. Chasms and steeps, ice and snow, rugged peaks and bottomless pits are here in abundance, with sullen grays, alluring greens and dazzling whites. She has flung her challenge to man, and man, bit by bit, here a little and there a little, has subtly and persistently enclosed her threats with the ring of his achievement—this ring the Canadian Pacific Railway. It is an achievement to be proud of! An achievement to be seen and admired.

Even to our feminine minds, untrained in technicalities, the engineering feat of carrying this road through and over these mountain fastnesses was awesome. Never for a second did we experience a feeling of instability or of physical dread. We felt as safe there on the brinks of precipitous cliffs as we did later on the rolling prairies.

Strength and skill are not the only qualities displayed by the makers of this road. Everywhere is shown a keen appreciation of its artistic possibilities. This is noted particularly in the locations chosen for the wayside inns where our meals were taken, during the first day and a half of our journey. At these places the train remains half or ¾ of an hour, as need be. We were ushered into flower-decked rooms where big open fires took the chill from the mountain air and even the scenery was forgotten for a little while as we gathered about the hospitably filled tables. The prairies come just in time. One could not stand the strain of this wonderful journey too long. We left Banff at night, and when we awoke we were on the plains, as in music the composer puts the bars of rest after the succession of stormy harmonies. Approaching from the West, Banff is really the climax of the journey. From the East it is promise of that which is to come. It has been made memorable recently by the visit of the Royal Couple, but it needs no royal approval to emphasize its attractions. Towering mountains enclose it as a gem is imbedded in its matrix. There are charming walks and drives, scenery which suggests Chamounix in the Alps—that most beautiful Swiss village; an hotel with every possible comfort and luxury from its cuisine to its sulphur baths, and an interesting assortment of cosmopolitan guests. There are other stopping points of interest where a day or 2 can be wisely spent, Glacier notably, which has also a fine hotel and scenery equally impressive.

In a word, take the Canadian Pacific Railroad either going or coming—both, if possible. To say that to cross the continent merely to return by that route would repay the traveler, is not saying too much; it is not saying enough.

PUBLISHER'S NOTES.

SUMMER FURNITURE.

The Old Hickory Chair Company, of Martinsville, Ind., is turning out a unique product. This is rustic furniture made entirely of hickory. The hickory groves of Indiana have long been famous, and "tough as hickory" is a local expression which represents the limit of endurance. No material could be better adapted than hickory for the manufacture of furniture suitable for country cottages, country clubs, log cabins, or other places where perhaps much hard usage would befall it. This company makes a large and attractive line of chairs, tables, settees, and other household pieces, as well as lawn and veranda seats, rustic bridges, summer houses, and even log cabins, notched and marked, ready to put up. All the framework of Old Hickory furniture is made of hickory saplings, with the bark on. This is a soft, quiet color, giving a rustic yet neat and artistic effect. The seats and backs of chairs are plaited by hand, of the inner hickory bark, which is of great strength. The material is all chemically treated, so it is free from germs and insect life.

The company issues a complete and handsome catalogue. Write them for it, and please say you saw their ad in RECREATION.

A NOVELTY FOR ANGLERS.

All anglers who fish much, and buy their minnows, will save money and annoyance by using a Fisk Aerating Minnow pail, made by J. M. Kenyon & Co. See their ad in this issue. The pail is so arranged that by means of an air pump and rubber tubes the water is constantly supplied with fresh air, which is necessary to keep the minnows alive.

I have one of these pails, which I have tested thoroughly, and find it works as the manufacturers claim it will. The pail contains a large air chamber in the bottom, into which air can be forced under a heavy pressure. Then it leaks out gradually into the bottom of the water chamber of the pail and comes up through the water, forming a stream of small bubbles. I have not made a test as to how long minnows could be kept alive in one pail of water, with this machine, but see no reason why they should not live in it indefinitely.

I have found Messrs. Kenyon & Company thoroughly reliable people and I feel confident that any reader of RECREATION who may order a minnow pail from them, and send his money in advance, will get just what he pays for.

A BUSINESS SUCCESS.

About 12 years ago Higgins & Seiter began business as dealers in glass and china in a small basement in West 22d street. Five times they have increased their room and facilities, and last summer they erected in conjunction with their 3 stores in West 22d street a 6 story building in 21st street. This is now amply stocked with the goods with which their name has become identified. The members of the firm attribute their growth largely to persistent advertising. There is not a month in the year in which the fact that they "sell glass and china ¼ less than elsewhere," is not kept prominently before the public. Much of their business is done through mail orders, from Maine to California.

The dinner table department always has an immense assortment of fine china and glass, and articles that are suitable for gifts are shown in a fascinating variety. Not only the choicest china and the richest cut glass are displayed, but also statuettes in marble and bronze, plaques, pedestals, hall clocks, candelabra, and finally paintings and water colors by well known artists.—New York Daily Tribune.

THE NECESSARY KODAK.

The Canadian government has officially recognized the Kodak as a necessary part of a camping outfit for hunting and fishing parties. In a circular issued by the Hon. John McDougald, Commissioner of Customs, dated at Ottawa, Canada, July 1st, 1897, he says, "Persons visiting Canada for health or pleasure may bring with them such guns, fishing rods, canoes, tents, camp equipment, cooking utensils, Kodaks, etc., as they may require while in Canada, etc." The circular goes on to provide that such outfits may be taken into Canada by depositing with the Collector, at the port of entry, a sum equivalent to the regular duty thereon, and that this sum will be refunded to the visitor on his return from the Dominion on presentation of receipts originally given him for the money by the customs officer.

This is indeed a well deserved recognition of the value of the Kodak for every hunter, angler or pleasure seeker.

MINING IN MONTANA.

Nearly one-third of the Wonderland book, for 1902, is devoted to mining in Montana, which dates from the early 60's.

The old mining days and the incidents of the time, most dramatic, are portrayed and photographs of the oldtime camps are given.

Many of these old historic spots, such as Alder Gulch, Confederate Gulch, etc., were visited by Mr. O. D. Wheeler, who wrote the book. The Montana mining of today, scientific in every detail, is also shown in its vast proportions.

To those interested in this subject and who desire to know the great value of the mining industry in Montana, this chapter will prove interesting and valuable reading. It is profusely illustrated.

If you want a copy of the book, you have only to send 6 cents to Chas. S. Fee, G. P. A., St. Paul, and mention RECREATION.

There was a serious mutiny in the United States penitentiary at Fort Leavenworth, Kan., in December last, in which several of the guards were killed, a number of the convicts killed and wounded, and some escaped, although they were mostly recaptured. It appears that the arms which the guards had on that occasion failed to work properly, and that was apparently one of the reasons why the convicts escaped. Such being the fact, it was decided by the United States authorities to call for sample arms for the purpose of testing, and to equip the guards with the arm which was most suitable and reliable. The Savage Arms Company was approached for sample arms, which were promptly shipped, and the Savage rifle was adopted. The order has been placed for entirely re-arming the guards with these rifles, although it is the highest priced rifle on the market.

Columbiaville, Mich.

Ithaca Gun Co., Ithaca, N. Y.:

Dear Sirs:—The Ithaca gun which you recently sent me on Mr. Shields' order as a premium for RECREATION subscribers is at hand, and is in every way satisfactory. I do not believe there is any other gun, selling for anywhere near the reasonable price of this one, that can equal it for beauty of workmanship and for close, hard shooting. Several of your guns are owned by sportsmen in this place, and are well liked. In a letter received from Mr. Shields a few weeks ago he assured me that your guns are first class in every respect, which is true. We all read RECREATION here, and like to see your ad looming up prominently in our favorite magazine. I shall always take pleasure in recommending your guns.

Yours truly, A. L. Vermilya.

A remarkable invention for the convenience of tourists is the new Goerz Photo-Stereo Binocular. This wonderful little instrument is in size and appearance an ordinary opera glass, and it serves that purpose. It is also a field glass, a simple camera and a stereoscopic camera; 4 necessities in one. It is small, light, strongly and perfectly made, and exceedingly powerful. It makes clear, sharp photos 1¾ by

2 inches, which admit of perfect enlargement. It gives either instantaneous or time exposures. As a field glass it magnifies 3½ times, and as an opera glass 2½ times. The photo lenses are Goerz double anastigmat. Write the C. P. Goerz Optical Works, 52 Union Square East, New York, for a descriptive circular and please mention RECREATION.

The Ideal Manufacturing Company is always on the alert to make tools and implements that will meet tne needs of shooters. The latest device made by this Company is the Ideal shot shell trimmer. This is a practical implement that will properly trim paper shells that have been fired. With it the soft and frayed ends of shells that have been fired a number of times may be cut off to any length desired. This trimmer is made for all gauges.

Every shooter should have a copy of the latest Ideal Hand Book, full of information to shooters. It also gives description and price of all Ideal Implements, which should be kept by all dealers in arms and ammunition. Address Ideal Mfg. Co., New Haven, Conn., and mention RECREATION.

Mr. E. H. Fitch has bought the interest of A. E. Gehben in the old firm of D. T. Abercrombie & Co., and the new concern will be known as Abercrombie & Fitch. Mr. Fitch is a gentle brother of the angle, a big game hunter, a good wing shot and, in fact, an all around sportsman and lover of outdoor life. Everybody knows Mr. Abercrombie's qualifications for conducting a business such as he has been running for years, and in this new addition to his working strength the house will be able to do everything that any reasonable sportsman could wish done, in the way of providing complete camping outfits. I know Mr. Fitch personally, and bespeak for him the good will and the confidence of all readers of RECREATION.

E. W. Stiles, 141 Washington street, Hartford, Conn., has issued a new and attractive catalogue of goods made of buffalo horns. These include mirrors, gun racks, buffalo skulls mounted on shields, electric light fixtures in great variety, silver loving cups artistically mounted with buffalo horn handles, etc.

These horns are genuine buffalo, picked up on the Western plains. The articles made in combination with these horns form interesting and valuable American souvenirs of an animal now nearly extinct. Write E. W. Stiles for a catalogue of these unique goods and say you saw it mentioned in RECREATION.

The Charles Daly gun has long been a standard among the better class of shooters, but the price has been beyond the reach of thousands of men who have often wished they could have one of these guns. In response to this large demand, Schoverling, Daly & Gales, of this city, have now put on the market a Charles Daly gun which retails at $80. It has many of the good qualities of the high-priced Daly guns, but of course is not so highly finished. See the ad of the new Daly in this issue of RECREATION, and write the manufacturers for full particulars. Mention RECREATION.

Jespersen & Hines have been occupying only half of the store at 10 Park Place, New York, with their sporting goods business, but it has outgrown that capacity, so they have crowded the other man out and will hereafter occupy the entire store. They will add to their previous lines a full outfit of tents, boats, camping outfits, sportsman's clothing and many other things they have not heretofore kept in stock, so readers of RECREATION may feel safe in ordering almost anything they may want from that house, and their orders will always receive prompt and careful attention.

E. S. Applegate & Co., of Trenton, N. J., have been compelled by increase of business to move to still larger quarters, and have selected a more central location, at 17 South Broad street. They carry a much larger stock than heretofore of bicycles, guns, ammunition, fishing tackle, sporting and athletic goods. To these they have lately added canoes, gasoline launches and general boating supplies. Sportsmen would do well to write Messrs. Applegate & Co., at their new address. Please say you saw it in RECREATION.

Rolla O. Heikes, the veteran shooter of the scatter gun, recently established a new record for long range flying target shooting at Waco, Texas. Mr. Heikes broke 99 out of 100 targets with a run of 89 breaks without a miss, at 10 yards. This work speaks well for the uniformity in the velocity and pattern of his load—factory loaded U. M. C. shells.

Sea Breeze, Fla.

Drs. H. R. Phillips and Wrean,
Penn Yan, N. Y.

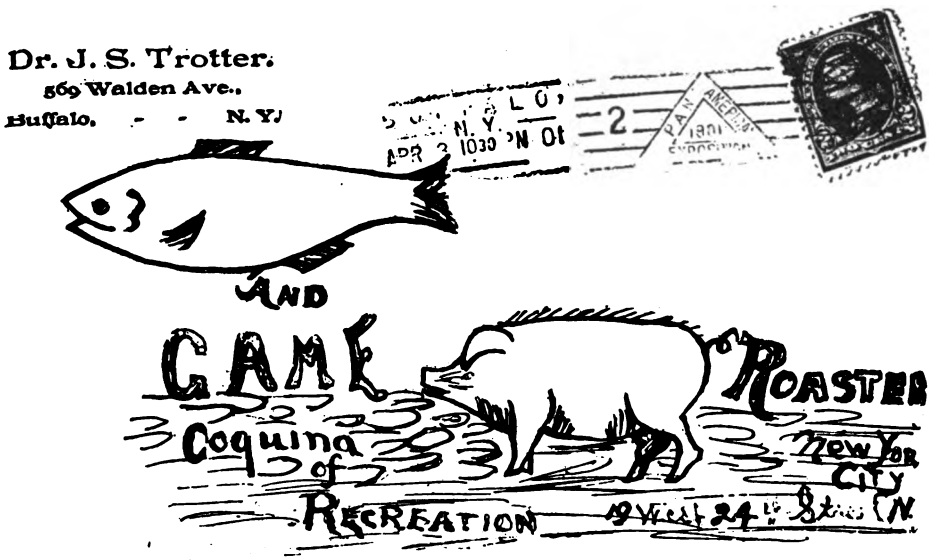
Dear Sirs: Rabbits and pedigrees arrived safe. The rabbits are in good condition and please me greatly. Yours truly,

C. M. Barlory.

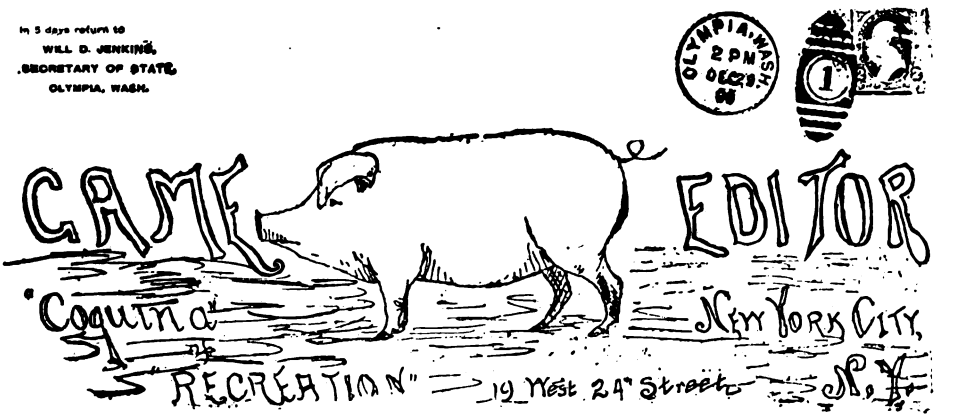
EDITOR'S CORNER.

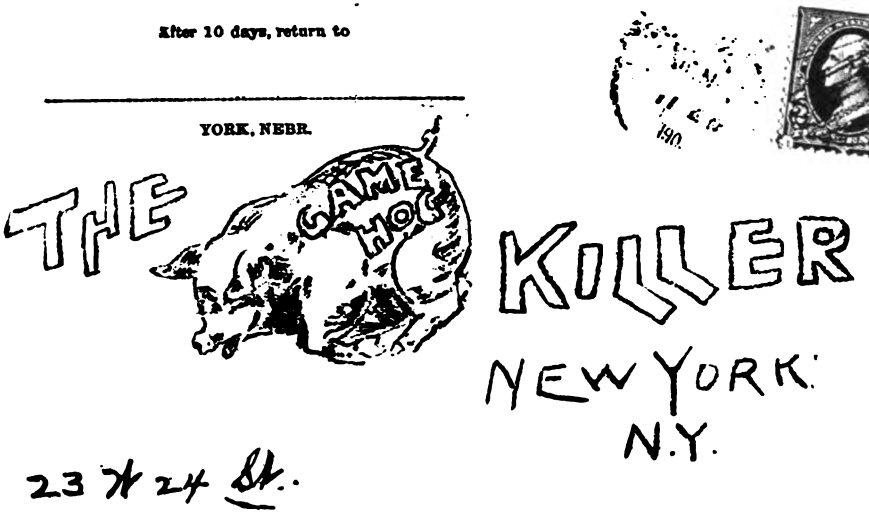
THE PICTORIAL SIDE OF THE GAME HOG WAR.

Many people say I talk too much about game and fish hogs. In fact, some of my best friends say this; but there are thousands of other good people who heartily approve everything I say and do in this line. I get great numbers of letters expressing this approval in words. Then, the extent to which my crusade appeals to the pictorial sense of my readers, is another indication. Here are reproductions of a few of the many envelopes that come to this office, bringing encouraging messages and hearty approval of my work. The first shown is from a prominent physician in Buffalo. Another comes from the Hon. W. D. Jenkins, Secretary of the State of Washington; another is from a well known business man of York, Neb., and still another from Glasgow, N. S.

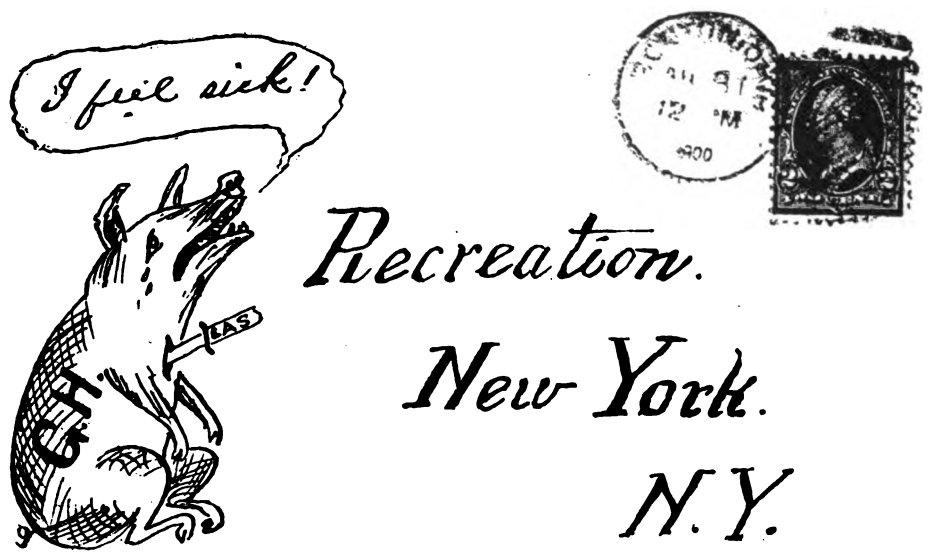


I have reproduced in RECREATION many pictures showing how the pork roasting business appeals to artists in various portions of the country. If I should print all of these, reducing each to a space 2 inches square, it would take at least 20 pages to hold them. Meantime, I hear of thousands

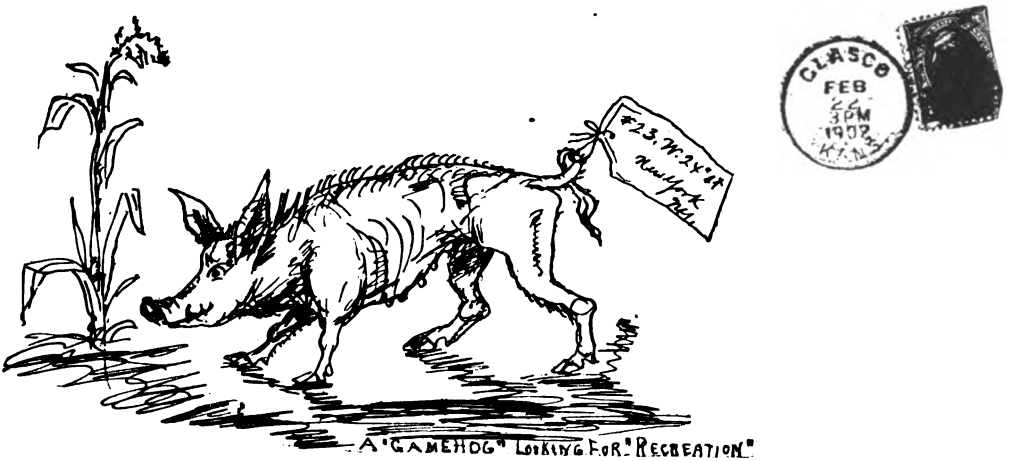




of men who still delight in slaughtering game, but who now exercise the utmost care in keeping their tracks covered, lest RECREATION find them. It is amusing to learn from the neighbors of some of these game and fish butchers how carefully the latter smuggle in their big bags and what precautions they take to keep the neighbors from hearing of them. There are still some who have not learned the lesson of the past few years, and who, when they make a big killing, rush madly to a local photographer, string up their game, stand up beside it, and get photographed. Then comes the inevitable. Some friend of the game gets a copy of the photograph, sends it to me, and in due time it appears in RECREATION, together with the names and addresses of the men who perpetrated the butchery. Then these men either reform or fall into the ranks of the skulkers and in future, when they return from their slaughtering matches, they sneak up the back alley after dark, tote their game into the kitchen and make the members of the household swear not to tell about it.

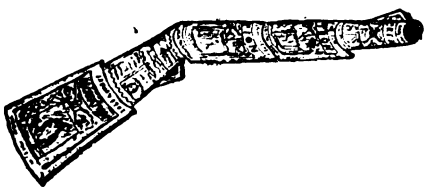


Ernest T. Seton tells of a case of this kind that came under his notice in New Mexico. A party of game hogs went from that State across the border into Texas,



and shot quails. They had what they called glorious sport for several days. They literally loaded their wagon with birds. Then they drove home in triumph. When they neared town they stopped, got out, and strung quails all over the wagon box

RECREATION



THE BEST MAGAZINE GUN EXTANT

UNEXCELLED PENETRATION,

ACCURACY NOT AFFECTED BY WIND

RANGE NOT YET ASCERTAINED

BUT KNOWN TO BE ACROSS THE CONTINENT.

THE BEST WEAPON FOR GAME HOGS.

EQUIPPED WITH SHIELDS FORESIGHT.

ASK COQUINA ABOUT IT.

and over the harness. They then drove up in front of the local picture gallery, got out some more quails, strung them over themselves, hung large bunches on their guns, stood about the team and had themselves photographed.

Meantime some decent citizen of the town who saw the disgusting array, went to the sheriff and reported the case to him. He was also a decent man, and went after the game hogs. When he questioned them they put up a defense to the effect that the game was not killed in New Mexico, but over the line in Texas. Hence, they said, they were exempt from the New Mexico law, and no Texas officer could follow them into New Mexico to arrest them.

"But," said a bystander, "just wait till RECREATION gets a copy of this picture."

"Who is RECREATION?" inquired one of the butchers.

"It's a magazine published in New York which gives such fellows as you what you deserve."

A hurried consultation was held and the game hogs decided it would be best not to have the pictures, after all. Then they called on the photographer again, countermanded the order and asked for the negative he had made. He was on to the scheme, and said:

"Nay, nay, Pauline, the negative is mine. I shall be glad to sell you any number of prints you may wish, but I shall not part with the negative. I can sell a print from it to a certain New York editor for many shekels."

"But," said the game hogs, "we do not want him to have a print."

"But I do," said the picture maker, "and I want his money."

While the picture was being made, the local editor had obtained full particulars of the hunt, returned to his office and was busy writing up the story. A committee was despatched to his office to ask him to suppress the report. He said:

"Nay, nay Pauline, this is good stuff and I must print it."

"But we don't want it printed."

"But I do," said the editor. "I do not approve of such slaughter of game as you have been guilty of, and intend to give you a column. Then I will send a marked copy to a certain New York editor who will give you fellows rats."

Digitized by Google

By that time the game hogs were hot all over and were down in their buckskin wallets for money to buy the negative, and to keep the story out of the local paper. It took all the dust they had to suppress the photographer and the editor.

Similar scenes are being enacted every day, somewhere in the country. RECREATION is threatened about once a month with a libel suit or an injunction suit, as a result of its branding process; but its picture gallery grows apace and some days 2 paces.

AND SHANLEY PAYS THE FREIGHT.

In February, 1901, I learned that grouse, quails and woodcock were being served at Shanley's restaurant, 1212 Broadway, New York. This was 45 days after the close of the legal season for selling these birds; so I went to Shanley's to dinner one night, took 2 friends with me, ordered quails on toast and got them. The next day I took 3 friends to lunch there, and we each had a woodcock. Then the next night we dined on ruffed grouse. The next day we took broiled quails again, for a change. In each case I carefully wrapped up the bones of one of the birds and brought them away with me. We kept on eating game until we thought we had enough penalties chalked up against Mr. Shanley to teach him a lesson. Then I had my attorney draw up a complaint against Mr. Shanley and he was summoned to court to answer for his illegal deeds. As usual the case hung fire a long time and was bandied about by the opposing counsel. A few months ago Mr. Shanley got tired of playing football in court, offered to confess judgment and pay a penalty of $250. Under existing circumstances the League officers decided it would be well to accept this proposition; so Mr. Shanley paid his good money into court and the case was disposed of.

Under the game and fish laws of this State the complainant in such case gets half of the fine imposed, after paying attorney's fees. Accordingly, I have received from the State Treasurer a check for $100 as my moiety in this case, and have bought with it 5,000 2-cent envelopes. These are to be used in carrying on the League work as long as they last, which will probably be 3 or 4 months. Mr. Shanley may, therefore, feel assured that his money is being put to good use. The envelopes which I have bought with it are now carrying League literature all over the United States and Canada. They are carrying copies of this statement to thousands of hotel and restaurant men in various towns and cities, to warn them as to what may happen to them if they serve game in close season.

Some of these envelopes are carrying notices to game dealers in various States of the Union, to remind them that in selling game to hotel and restaurant men they are perhaps contributing to the future grief of such customers.

I trust Mr. Shanley may enjoy these reflections, and that in future he will endeavor to feed his patrons on food that may be sold and served without violating any law.

If the June number of RECREATION is better than its predecessors, it is owing to the fact that the Editor was away while it was being made up and put to press. Of course I roasted some pork and fixed up a few other things for that issue before leaving home, but the detail of the work was left to an able corps of assistants, who, I trust, have done their work to the entire satisfaction of all my readers and advertisers.

Where have I been? In the Selkirk mountains, British Columbia. I spent a month climbing mountains, in the hope of regaining my health, which has been seriously impaired by overwork. I am not cured, but am a lot better off than I was. I shall be compelled to absent myself from business during a portion of the summer, but shall keep in close touch with the office, and the interests of the magazine will be carefully looked after. The League work will also be in good hands during my absence, and I trust I may get in such shape by next fall that I can take up both lines of work with renewed vigor.

I have received at least 100 clippings from various newspapers telling of a large killing of ducks, said to have been made near Norfolk, Va., in March last, by Grover Cleveland, Paul Van Dyke and others. I wrote Mr. Cleveland, asking if the reports were correct, and he replied, "I am glad to say there is no approach to truth in the story of duck butchery referred to."

I also wrote Mr. Van Dyke, and he answered to the same effect.

It is well known that nearly all newspaper reporters, when talking of prominent men who go hunting or fishing, grossly exaggregate the quantity of fish caught or game killed. In view of Mr. Cleveland's frank statement, it is fair to assume that the wild-eyed reporters of Norfolk who interviewed him and his friends on their return from the hunting trip are no exception to the rule.

You would be surprised, or at least I was, to find in the little towns up the line and out by the St. Lawrence river, RECREATION lying on the counter of some news stand. It certainly has a wide circulation.

R. C. W. Lett, Ottawa, Ont.

Poor Beer vs. Pure Beer

Both cost you alike, yet one costs the maker twice as much as the other. One is good and good for you; the other is harmful. Let us tell your where the difference lies.

POOR BEER

is easy to brew.

The materials are cheap. The brewing may be done under any sort of surroundings.

Cleanliness is not important, for the users never see it brewed.

Any water will do. No air is too impure for the cooling.

No filtering, no sterilizing; almost no ageing, for ageing ties up money.

What is the use of expense and care when there is no reputation to defend?—

When few people who drink it know even the name of the maker.

PURE BEER

calls for the best materials —the best money can buy.

The brewery must be as clean as your kitchen; the utensils as clean.

The cooling must be done in filtered air, in a plate glass room.

The product must be aged for months, until thoroughly fermented, else biliousness results.

The beer must be filtered, then sterilized in the bottle.

You're always welcome to that brewery, the owners are proud of it.

And the size of it proves the eventual success of worth.

To maintain its standard, we double the necessary cost of our brewing. Don't you prefer a pure beer, a good beer, a healthful beer, when it costs no more than common?

Ask for the brewery bottling.

Schlitz

The Beer That Made Milwaukee Famous

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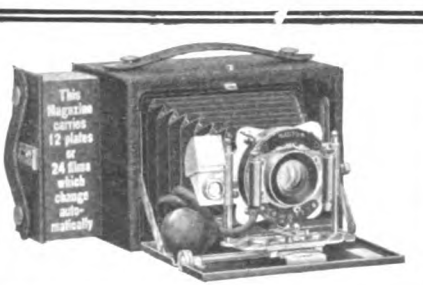
The Magic Magazine

The magazine of the ***Snappa*** Camera is the wonder of the photographic world. It carries 12 plates or 24 films which it changes like magic the instant the exposure is made. Whether you take a picture every second or only one a week, you always have a fresh plate or film ready for instant use. Every exposure is entirely separate and distinct and can be correctly developed. The

Snappa Camera

is fitted with the famous Plantograph Lens, the new Auto Shutter and every adjustment an expert requires. If you want to understand the latest wonders of photography you must know all about this wonderful camera. Ask to see it at the dealers or send for an illustrated book—FREE.

Rochester Optical and Camera Co., 119 South St., Rochester, N. Y.



AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

7th ANNUAL COMPETITION.

RECREATION has conducted 6 amateur photographic competitions, all of which have been eminently successful. The 7th opened April 1st, 1902, and will close November 30th, 1902.

Following is a list of prizes to be awarded:

First prize: A Long Focus Korona Camera 5 x 7, made by the Gundlach Optical Co., Rochester, N. Y., fitted with a Turner-Reich Anastigmat Lens, and listed at $85.

Second prize: A No. 3 Folding Pocket Kodak, made by the Eastman Kodak Co., Rochester, N. Y., fitted with a Bausch & Lomb Lens Plastigmat Unicum Shutter, and listed at $61.50.

Third prize: An Al-Vista-Panoramic Camera, made by the Multiscope and Film Co., Burlington, Wis., and listed at $40.

Fourth prize: A Wizard C Camera, 4 x 5, made by the Manhattan Optical Co. Cresskill, N. J., with B. & L. Iris Diaphragm and Leather Carrying Case; listed at $33.

Fifth prize: A Waterproof Wall Tent, 12 x 16, made by D. T. Abercrombie & Co., New York, and Listed at $32.

Sixth prize: A Gold Hunting Case Watch; listed at $50.

Seventh prize: A Tourist Hawkeye Camera, 4 x 5, and made by the Blair Camera Co., Rochester, N. Y., and listed at $15.

Eighth prize: A Bristol Steel Fishing Rod, made by the Horton Mfg. Co., Bristol, Conn., and listed at $6.

The 10 next best pictures will each be awarded one dozen 8 x 10 Carbutt Plates, made by the Carbutt Dry Plate Co., Wayne Junction, Philadelphia, Pa.

The 10 next best pictures will each be awarded one dozen 5 x 7 Carbutt Plates.

The 10 next best pictures will each be awarded one dozen 4 x 5 Carbutt Plates.

A special prize: A Goerz Binocular Field Glass, listed at $74.25, will be given for the best picture of a live wild animal.

Subjects are limited to wild animals, birds, fishes, camp scenes, and to figures or groups of persons, or animals, representing in a truthful manner shooting, fishing, amateur photography, bicycling, sailing or other form of outdoor or indoor sport or recreation. Awards to be made by 3 judges, none of whom shall be competitors.

Conditions: Contestants must submit 2 mounted prints, either silver, bromide, platinum or carbon, of each subject, which, as well as the negative, shall become the property of RECREATION. Negatives not to be sent unless called for.

In submitting pictures, please write simply your full name and address on the back of each, and number such prints as you may send, 1, 2, 3, etc. Then in a letter addressed Photographic Editor, RECREATION, say, for instance:

No. 1 is entitled —— ——.
Made with a —— —— camera.
—— —— lens.
On a —— —— plate.
Printed on —— —— paper.
Length of exposure, —— ——.

Then add any further information you may deem of interest to the judges, or to other amateur photographers. Same as to Nos. 2, 3, etc.

This is necessary in order to save postage. In all cases where more than the name and address of the sender and serial number of picture are written on the back of prints I am required to pay letter postage here. I have paid as high as $2.50 on a single package of a dozen pictures, in addition to that prepaid by the sender, on account of too much writing on the prints.

Any number of subjects may be submitted.

Pictures that may have been published elsewhere, or that may have been entered in any other competition, not available. No entry fee charged.

Don't let people who pose for you look at the camera. Occupy them in some other way. Many otherwise fine pictures have failed to win in the former competitions because the makers did not heed this warning.

THE WORKROOM.

For spotting mat prints, such as Velox, bromide, or platinum, the general practice of using a spotting brush and India ink, is not the only or most satisfactory method. A brush is an unwieldy thing for one so little accustomed to it as photographers in general. I have been using a certain pencil several years, and I find it superior in many ways. The fact that this pencil is unknown to photographers and has been introduced only recently, probably accounts for its not being used. This is the "Negro" pencil, made by Hardtmuth, of Vienna, and it can be obtained from dealers in artists' materials. They claim it is neither graphite nor crayon, but keep its composition a secret. It is made in 5 grades. For spotting, No. 5, the hard, for light and delicate work, and No. 1 or 2, soft, for blacks will be found sufficient. Work done with these pencils does not shine as with the graphite or lead pencil, and it does not rub off like crayon work; besides it is much cleaner. Spotting is done much more quickly and neatly in this manner, than with a brush. An error can easily be erased with a rubber.

While developing Velox, bromide, or other papers, it often happens that some part of a print comes out too black, or overexposed, while the remainder of the print is properly exposed. This can be avoided, by plunging the print into clean water, or

blotting it on clean blotting paper, and then with a brush, dipped into a 10 per cent solution of bromide of potash, painting the overprinted parts. Return to the developer and proceed as usual. A slow working developer is preferred. Wherever the bromide of potash is applied it checks the development; therefore care must be taken not to apply so much as to cause it to run where it is not desired.

A serviceable addition to the dark room sink is made of a board, 8 or 10 inches wide and a little shorter than the inside width of the sink. About one inch from each end nail 2 cross-strips or blocks, so that one end of the board is ½ to 1 inch higher than the other. This forms a sort of bench, 3 or 4 inches high, which sits in the sink with the higher end under the faucet. After this is complete, cover the upper surface with carpet, or some similar material, fold it over the edge and tack underneath. This may form a permanent fixture in the sink, or it can be removed at will. It should never be quite so high as the sides of the sink, and should be placed so the water will strike it at the higher end.

When a negative is taken from the hypo drop it on the board, and by the time you have attended to a few other things it is sufficiently washed; or if you are only developing 4 or 5 plates you will need no further washing arrangement. The carpet covering prevents the plates from slipping, and it holds a sheet of glass so firmly that while cleaning old negatives or lantern slide cover glass, you can give them a thorough scrubbing under running water, without fear of slipping.

An excellent retouching medium for negatives can be made by dissolving a small quantity of light colored shoemaker's wax in gasoline, decanting the clear liquid and adding spirits of turpentine.

Another good medium is made by adding a small quantity of damar varnish to spirits of turpentine. Apply a small quantity of either of these to the part of the negative to be retouched and wipe off the surplus with a piece of muslin or your hand. I prefer the latter, as it does not leave lint on the negative. These formulae will permit much heavy work on the negative, especially if a fairly soft pencil is used.—Western Camera Notes.

PRINTING IN CLOUDS

This is a good time of the year to procure a few cloud negatives, and if 1 or 2 are taken now and again when out picture hunting, a valuable stock will soon accumulate. If taken on films, each will give 2 views, from the fact of their being reversible.

The picture being printed, and the cloud negative having been chosen for the subject, the masking of the picture while printing in the cloud is the main point to be overcome. The joining of the horizon lines is often badly done, and if by chance the picture line is slightly intricate, it is generally here that a weak point exists.

Provide yourself with a dozen or more sheets of thin white tracing paper, cut to the size of the plate you are working. When you have finished printing your landscape take it out of your frame, place it on a small board, place a piece of tracing paper over it, and retire to the other side of the room. You will then be able to draw with a fine pen over the most important objects in the picture a line from one side to the other, following, of course, the details. Give ample time to this part of the work, for without it you can not succeed. When you have finished this outline, all that is necessary is to fill in the view with India ink, artist's black or vermillion, and let it thoroughly dry, which will take but a few moments. Insert the cloud negative in the printing frame, place the print, with the mask in register, in position in the frame, and print in the cloud to the proper depth.

If you possess a retouching desk, these masks may be made at night from the negative. With a few pieces of stamp paper attach the edges from front of paper to glass side of the negative to prevent its slipping; afterward it can be detached and then blackened out. The hard lines are softened to a nicety by printing through the tracing paper, and perhaps a little longer time is required to print.

With a negative that has clouds, it often happens that in printing the clouds properly the view is overdone. The tracing paper mask is useful in such cases. In printing on paper that gives no visible image, such as carbon, platinotype, bromide, etc., the paper negative and mask should be placed well into one corner of the frame, and a note made of it on the back of the print, so as to provide against any chance of mistakes. Nothing is more annoying than to find, after all your pains, that you have manipulated your sky upside down on the view when you come to develop the picture.

A good white tracing paper gives no grain that will harm a print, and care should be taken that it is not crumpled. It deteriorates with age, going yellow, which makes a long printing job; but the paper is cheap enough for one to make a fresh mask when required.—Erudio, in Photographic News.

MY MOST INSTRUCTIVE EXPER'ENCE.

My most instructive experience was the result of a mistake. When I first started making lantern slides I found difficulty in judging the exposure to give. I exposed many slides with only a few good results.

'One day in making slides by reduction and trying to get the correct time on a negative from which I had already made a slide, I forgot to stop down the lens before making the exposure. The slide, therefore, had 3 times the exposure I intended to give, so that I concluded it was another failure. Instead of throwing the slide away, however, I determined to see what I could make of it, and therefore mixed the following developer:

Water	4 ounces.
Saturated solution sodium sulphite	4 drams.
Acetone	2 drams.
Dry pyro	10 grains.

To this I added 10 drops of a 10 per cent solution of bromide potassium. To my surprise the slide came up slowly and evenly and developed to good density without the slightest trace of fog When thrown on the screen it proved fairly satisfactory. Taking advantage of this mistake I thereafter proceeded along the same lines, greatly over exposing the slides and so manipulating them in the developer as to give the best results. Since that lucky mistake I have lost few slides, one exposure generally sufficing where before I would perhaps make 3 to 6 exposures to get a good one. I do not think the above plan could be followed with all developers, as the tendency would be toward fogging; but with pyro acetone I have never had the slightest trace of fog, and in the most contrasty negatives the shadows will not clog before the high lights and half tones gain their proper gradation. The exposure I give at a North window in good daylight is 3 minutes with stop 16.

Another suggestion in regard to the fixing of slides will perhaps prove beneficial. It will frequently be noticed that although there is no pinhole in the slide on removing it from the developer, 2 or 3 will appear when the negative is in the fixing bath. This generally results where the slide is fixed in a flat tray. Instead of fixing by laying flat in a tray, get a small box, stand the slides up on edge in the hypo and pinholes will be an infrequent occurrence.—John Hadden, in Paine's Photographic Magazine.

ISOCHROMATIC PLATES.

Isochromatic plates are especially adapted for obtaining color values.

If the amateur will give a Crown plate and an isochromatic of the same speed, the same time and same stop, and develop with the same developer, he will see a vast difference, and, I believe, will use only the isochromatic plate for any subject in the future. The cost is only 5 cents a dozen more, and the result is more than 5 times better.

A slow isochromatic plate is not the best for portraits out of doors, as 14 seconds is too long, especially if any wind be blowing. The instantaneous plate is excellent for outdoor scenes, especially if it be stopped down to 16 F. or 32 F. For all around work, the medium brand is a plate hard to duplicate. The best effects of sea views or snow scenes can be obtained on Aristo-platino paper, from these plates. The surf and foam of the waves show as clearly as it is possible to get them. These plates are not more difficult to handle than any others. Keep all white light from the plate, and do not keep it too near the ruby light. A red lantern, with no white light coming out of any small holes or openings, is as good a lamp as can be had. Pyro is the best developer. It brings out things more clearly and gives a far better negative to print from. One need not keep his hands in the pyro all the time. An old knife is handy in the dark room for plates sticking in the holders and to lift the plate out of the pyro. Here is a formula for small quantities of developer to be made up and used as one wishes to develop; say only 2 or 4 plates. It can be made at a small cost, and always full strength, giving good results:

Stir into 8 ounces of boiled water 1 drachm (60 grains) carbonate of soda, 2 drachms (120 grains) sulphur. When dissolved, add 3 grains of dry pyro for each ounce of water; less pyro, less intensity. For users of 4 x 5 plates, 4 ounces are plenty.

In making hypo I have found it well to use plain hypo and water, 4 ounces of water to one ounce of hypo, and lay aside all other chemicals, especially in winter.

H. P. Wightman, Evanston, Ill.

RESULTS OF SOME EXPERIMENTS.

The dry plate, or film, is exceedingly sensitive to light, yet people persist in overestimating its sensitiveness when taking a picture and underestimating it when in the developing room. Do not be afraid of slow instantaneous instead of rapid instantaneous timing. Ruby light will fog a plate if too near until development is well begun. Last summer I bought a cow, thinking I would photograph it with the children or dogs or something playing with it; also, would get a genuine milking scene. Whenever I tried I got everything all right but the cow. She came out in silhouette, and I wasted much ammunition on that wretched quadruped before I found that it is almost impossible to snap a red cow at 10 feet. Finally, by using isochromatic plates and a slow shutter, I could take my red cow every time.

When I began to develop I entertained the idea that a strong developer would be

best, but luckily I met a man who put me on the right track, and I got well acquainted with tank development and pyro. I have made up the pyro developer that is prescribed for the plate I use and then I go about it this way: I use an ounce of each of the 2 bottles in 4 ounces of water to develop a dozen 4 x 5 plates. I fill my rubber tank, which is an ordinary fixing box with cover, nearly full of water, including the 2 ounces of developer, stir it, drop in my plates, cover, and wait 3 hours. It is so easy I am ashamed to admit I use it, but I have tried all the other ways for experiment and I do not get the results I do with the tank. I make all my pretentious work in carbon. It is neither difficult nor expensive. I often use films and, of course, prefer them for carbon work, as by printing through the backs I can make carbons by single transfer that are not reversed. With plates I have to use the double transfer process. You do not know what a good print is till you have made your red, sepia, green, blue, brown, black, grey, etc., carbons. The process is king of all.—Edmond Pond, in the Photo-American.

MR. KIRSCHNER EXPLAINS.

I see in February RECREATION you awarded a prize to Mrs. P. B. Kirschner for a photo of a buck which was wounded and which, from all appearances, was taken in the close season, as it has velvet on its horns, and the foliage indicates that it was not in open season. The buck was undoubtedly killed, as it was known to weigh nearly 200 pounds. Of course I do not think Mrs. Kirschner shot the deer, save with her camera; but the party who did shoot the deer ought to be prosecuted to the full extent of the law. If that deer was killed and weighed out of season, why do you not find out the offending party and see that he pays his fine?

James Clemens, Nemo, S. Dak.

On receipt of the foregoing letter I forwarded it to Mrs. Kirschner, and her husband replied as follows:

As I killed the deer in question, I think it my duty to reply to the attached correspondence, thereby relieving Mrs. Kirschner from all responsibility. If Mr. Clemens has never seen a deer in the velvet in September, he has yet something to learn. His argument that the foliage shown in the photo indicates that the deer was taken in the close season, will not hold. The foliage shown in the photo is chiefly, if not wholly, witchhopple, which does not die off in June like sage brush in Dakota, which Mr. Clemens probably had in mind.

I wounded the deer near Big Otter lake, New York, September 3, 1901. He got away from me, and as it was getting too dark to follow him, I left him over night, knowing he was badly hurt. The next morning, together with Mrs. Kirschner and my brother, a guide, we took up the deer's trail and soon found him lying down as indicated in photo, when another shot finished him.

Any further information you may wish regarding this matter will be cheerfully given.

P. B. Kirschner, Lowell, Mass.

UNCLE JOSH AND THE CAMERA GIRL.

Yeh see, she wuz a summer girl, an' when she come down tu our place tu stay a week, she brot a thing-ma-gum she called a Kodax with her.

It wuz a kind uv a box with a eyehole in one end, an' a button tu press on the side.

When you pressed the button it tuk a pictur. I kno' it did, fer I saw one it tuk uv M'ria, milkin' th' jersey cow, an' it wuz jist as nateral as life.

That gal wuz a stunner! She wore purty cloze, an' she had th' new Florodoro hold-up way uv liftin' her dress, to perfection.

Ev'ry man in town wuld turn an' look after her when she past by.

Why, I'd stop buggin' th' pertaters any day an' set up at th' corner fer an hour to see her go crost the street.

Well, I wuz goin' to tell yeh 'bout that Kodax.

She went round snappin' it at most everything she see.

She told me she liked to git Gene Ray picturs; she sed Gene Ray picturs told a story. They never told me any, tho'.

One day little Bobby fell in th' soap kittle an' ruined his new pance. She tuk a snap shot uv him an' called it "A Sunset in Greece."

One day when M'ria wuz trimmin' my hare an' whiskers with the sheep shears, th' gal tuk a pictur uv us an' called it "Moss from an Old Mans"; an' one time when she got her close fast on th' stake-and-rider fense, an' I had tu go an' hep her down, she remarked, "Saved from over-exposure."

Some time I'll tell yer about how she tuk th' pictur uv the yearlin' calf.—Western Camera Notes.

SHOULD BE NEUTRAL.

Must sulphite of soda be exactly neutral? I have some which is strongly alkaline. I bring it as near neutral as I can with sulphuric acid and litmus paper. Is that method correct? Does it not form a sulphate which is a powerful reducer or restrainer? How should pyro be used, kept, etc.? How long should a plate be in pyro

developer? Is it economical to use combined developer and fixer, and is it worth anything in your opinion? How can plates be spotted? I mean how is it done? Can "E. W. N." be bought in smaller quantities? Should an acid fixer be used with an alkaline developer? How can portraits best be made with a 4 x 5 Wizard B. and a Nehring portrait lens? My room in which I make them has windows on the West.

Edgar R. Thome, West Hanover, Pa.

ANSWER.

Sulphite of soda is neutral if good. Alkaline sulphite disturbs the balance of your developer, naturally.

Some only keep a stock solution of sulphite at 60 grains to the ounce, or even 40, and add dry pyro and dry soda as wanted when developing.

Boflay is good. It is, I believe, hydrochinone and hypo with carbonate of potash.

Send to E. W. Newcomb, Bible House, New York City, for circular in answer to this, no charge for directions. The 50 cent box is the least quantity sold.

Acid fixer is often used after alkaline developer, and you will find it recommended for many plates by the makers.

Your arrangement is good. If you use a reflecting screen to one side of and a little in front of the sitter you will have good results.—EDITOR.

NOTHING BETTER THAN PYRO.

Does the length of time a P. O. P. print remains in the toning bath affect the permanency; whether removed quickly for red or brown tones, or left the usual length of time, as for purple or black?

You place pyro ahead of all other developers. I have never used it, and hesitate now to make a change, since my work, though not altogether satisfactory to myself, is fair. Do you think the results would justify the extra trouble of using pyro, with its staining propensities, etc.?

Is there any method of preventing the tendency to fog, during development in hot weather, other than using ice, where this is hard to obtain?

Amateur, Blackstone, Va.

ANSWER.

The print, in combined bath, should remain only long enough to insure fixation, regardless of the tone. In the double tones you may tone red, purple or nearly black in gold and then fix in hypo without affecting the permanency of the print.

Pyro is absolutely the best developer there is, and will give amateurs far better results than so-called stainless developers, which do stain after all. By using plate lifters for plates and clips for film you need never soil your fingers in pyro. The sooner you use it the better it will be for you.

Plates do not fog any more during hot weather than cold, nor will ice stop fog. If you mean frill, use formaldehyde in your hypo, one dram to a pint. If you mean fog, stop up the cracks in your room, replace your slides squarely in the holder, do not use a leaky lamp, keep holders in shade when out, and you will not have so much fog.—EDITOR.

TO GIVE CRIMSON TONE.

Crimson prints are a new thing, that is, as far as anything can be new in this age of second-hand discoveries. The toning bath is made up when wanted and used at once, and is as follows:

Sulphocyanide of ammonia	75 grains.
Iodide of potash	20 "
Water	3 ounces.
Chloride of gold, dissolved in 2 drams water	4 grains.

Wash the prints well before toning, and see to it that they are but proof deep. Fix full 15 minutes, as silver iodide dissolves less freely in hypo than silver chloride. Toning to a bright crimson with the above bath takes 30 to 45 minutes. There is your formula; now if you want to paint the town's portraits red, go ahead.

Blue prints are in favor again. I am glad of it. The humble, simply made, water-developed, permanent old chap has not deserved to be let alone as he has been for some years. Try a 9x14 panel in blue, with a border of silver paint ¼ inch wide around the edge. Call it a Venetian or a Cyanotype, or any other name, state that it is warranted absolutely fadeless and permanent, and charge an extra price for it. Might be just the thing to revive interest in some of your negatives.—E. W. Newcomb, in the Professional and Amateur Photographer.

HOW TO WORK URANIUM INTENSIFIER.

I inclose clipping giving formula for intensifier. Will you please explain more fully, through RECREATION, how to work it? T. Beach, Columbia, Ala.

The clipping enclosed by Mr. Beach is as follows:

Nitrate of uranium intensifier will give to the thinnest negatives printing qualities which the mercurial intensifier fails to give on account of the red color which it imparts to the negative. The formula is the following: Solution I., dilute acetic acid with 4 times its bulk of water. To 100 parts of it add one part of nitrate of uranium. Solution II. is a one per cent. solution of red prussiate of potassium. For

use, add Solution II. to Solution I. in equal quantities.

ANSWER.

The formula says to add 8 ounces of water to 2 ounces of glacial acetic acid. That gives 10 ounces of dilute acid. To that, add 44 grains of nitrate of uranium. Then mix 50 grains of red prussiate of potash in 10 ounces of water. Bottle each separately and label A and B. Use one ounce or more of each to intensify negatives and throw away this mixed intensifier after use. Separately they keep, but not mixed A and B.—EDITOR.

TRANSMISSION OF LIGHT

Following is a good way to experiment with the effects of the selective transmission of light produced in the negative, or in other words the results of absorbing partly or wholly one or more of the 3 colors, red, green and violet, which go to make up the light that reaches the plate. Place in a clear hypo or hypo-chrome alum solution a plate which has been spoiled in exposing or any plate in which there is no free silver. A new plate is best. Leave until every trace of the silver and bromium salts has disappeared. When the opaqueness has vanished the operation is about ¾ completed. After thoroughly washing out the hypo dry carefully. When the gelatine is hard lay the plate, film down, on a clean filter or blotter and cut it with a diamond into squares of a size sufficient to cover the lens. These small plates will readily assume the color of any solution into which they are placed. Do not use a solution that will leave a crystalline deposit on the film in drying. Procure some of the aniline colors and mix them to suit yourself. Varied results will be obtained by combining one or more of the screens or by only partially covering the lens during exposure.

William A. Fuller, Ithaca, N. Y.

SNAP SHOTS.

Is E. W. Newcomb's spotting medium, mentioned in March RECREATION, used for retouching negatives? Where can I obtain it? What will keep films from rolling?

My husband and I enjoy RECREATION greatly, and find much useful and interesting reading matter in it.

Mrs. R. E. Sumner, Ludlow, Mass.

ANSWER.

No, Newcomb's Ideal spotting medium is not to retouch negatives in the sense of smoothing out faces. It is to fill in holes, scratches, etc., in both negative and print. You will find the soaking solution given in Eastman's instructions the proper thing to keep films from curling: Water, 1 quart; glycerine, 1 ounce; soak 5 minutes after washing and pin up film, right out of soaking solution, by its 4 corners.—EDITOR.

Those who are accustomed to work the carbon process, know that when the same warm water has been used for developing several carbon prints, the dissolved gelatine has an unpleasant tendency to work up into a froth by the inevitable splashing of the water. To skim off this froth is only to find it replaced a few moments afterward. The following suggestion meets the case: Take a piece of common yellow kitchen soap, and pass the moist hands over it 2 or 3 times, just enough to get a slight lather. This, when mixed with the water, dispels all gelatine froth as though by magic and no harmful effects follow. A slight trace of soapy lather will counteract a large quantity of gelatine froth.—The News Monger.

What will prevent ferrotype plates, that are used for squeegeeing, from adhering?

D. B., Plymouth, Pa.

ANSWER.

Make the following waxing solution and when your ferro plates are cleaned and polished drop a few drops on each and rub around vigorously with a woolen cloth until an almost unperceptible coating is secured. Then squeegee your prints on and they will never stick. Repeat at each use of plates.

Dissolve 2 drams yellow beeswax shavings in 1 ounce each of ether, alcohol (95 per cent.) and benzole. Shake till dissolved and keep tightly corked.—EDITOR.

Will you kindly give me a little information in regard to coloring photos? I mean, to take the print after it is made and color the dress, hair, eyes, etc. What kind of colors are used, and what is used to soften the print, so it will take the color? How are colors applied, etc.?

W. W. Noble, Yazoo City, Miss.

ANSWER.

Use Marshall's electric colors and his medium to apply before coloring, so the color will spread. The colors and full instructions are to be had of A. G. Marshall, 625 Vanderbilt avenue, Brooklyn, N. Y.—EDITOR.

Will you please give me formula for salting solution in making plain salted paper? F. C. Wilbour, Austin, Minn.

ANSWER.

Ammonium chloride.....60 grains
Gelatine .....20 grains
Water .....20 ounces

Dissolve by gentle heat and soak paper in the solution 2 minutes.—EDITOR.

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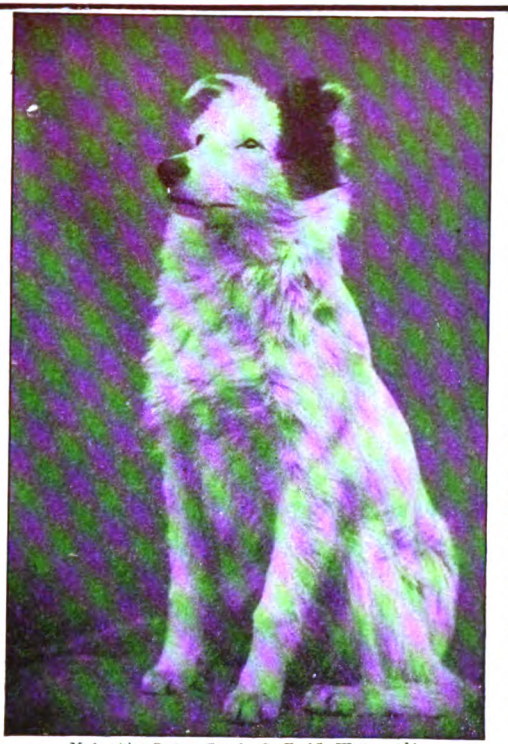

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A NOT UNUSUAL HEART SHOT.

B. and I were hunting deer some years ago near French river. While returning to camp one evening, I shot a rabbit, and was carrying it, walking a little behind my friend. Suddenly B.'s rifle went to his shoulder, and I saw a large buck standing about 60 yards in front of us. As my companion was a good shot, I remained motionless, feeling sure it was his meat. At the crack of the rifle the deer started, his first jump taking him out of sight. "I got him!" cried B., "I shot him through the heart." "Are you sure?" I asked. "Yes," he said, "I had a good bead on him." We went to where the buck had been standing and found his trail, but no blood. After beating about awhile B. cried, "Here is blood!" and so there was, though but little. We followed the blood stain, which grew plainer at every step. Presently we came to the spot where I shot the rabbit, and it dawned on us that we had been following our own back trail by the rabbit's blood. Returning to the place where we saw the deer, we found B.'s bullet embedded in a tree. B. seldom speaks of a heart shot since then; but when he does, the boys laugh.

F. W. Foreshew, Sheguiandat, Ont.

IF YOU WOULD LIVE NEXT TO NATURE, READ RECREATION.

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HE SHOT CLEAR OUT ON THE SLOPING GROUND.

RECREATION

Volume XVII. AUGUST, 1902. Number 2.

G. O. SHIELDS (COQUINA), Editor and Manager

AN UNEXPECTED CATCH.

DON CAMRON.

THE day was perfect for trout; the sun just visible through the soft gray clouds, a South wind blowing gently and the waters of Big creek running black over the stones. Perfect, because the trout knew that in such weather they could move out from their secluded hiding places into the swift, darkened waters of the stream without being observed, and from the mossy side of a rock or a sunken log they could watch with red-rimmed, protruding eyes for floating dainties.

I was carefully working my way down the stream, using the finest of tackle and fishing with all the skill I possessed. The water was high and the ground well fished, and, as usual, the big fellows were more than shy. Six already lay in my basket, and the day was young.

Just below where I was fishing, the stream is joined by a small creek, the outlet to a dainty little lake snugly nestled in the hills about a mile away. This lake is stocked with big mouth black bass, and at certain times of the year affords excellent fishing. Occasionally some of these bass work down the brook into Big creek, and many a good one has been caught in the big, deep hole where the streams join.

As I approached the place a certain unexplainable condition of the water, which can only be seen by anglers, told me there was a big fish in the pool, and I resolved to do my best to hook him. From behind a friendly willow scrub I made a cast. Twice I sent the flies hissing through the air across the water, to dry the feathers and attract a possible fish's attention. The third time I let them sink, fluttering down close beside a large patch of muddy foam. The Reuben Wood tail fly scarcely touched the water when a huge bass lurched half out and closed 2 rows of teeth around it. I was frightened, and must confess I trembled like a tenderfoot, but instantly resolved to fight to the last ditch. Instinctively I gave that well known twitch of the wrist and fastened the barbed steel deep into his bony jaws. The next instant he sprang clear of the water and fell with a whack on the slackened line. Then came a lunge so quick and unexpected that he snapped off a foot and a half from the tip of my 10-ounce lancewood, instantly changing it into a respectable bass rod.

The piece of tip slid down the taut line close to the fish's mouth, greatly hindering him in his actions. Again and again he jumped, the piece of steel rattling against his scaly sides and goading him on to greater fury. Over he went, skipping and splashing over the water like a flat stone. It was only by luck that I slackened the line at the right moment. I have hooked many a big fish but I never saw one so gamy as he was. From the first I realized that I could never land him with such light tackle and a remnant of a rod. It was only a question of time when he would get a fair pull. Then something would part.

Up and down he dashed, trying in every imaginable way to throw his weight on the line. I gave the reel just brake enough to keep a steady

pull at his head, and avoid a tug-of-war which would have resulted in a division of the tackle. Forward and back he flashed, with changes that were almost too complicated for human ingenuity to understand, apparently getting fresher and madder every minute. Inch by inch the reserved line vanished from my reel, and I was waist deep in the water. Suddenly he dashed straight down the stream and I can safely say I made the first hundred yards in less than 12 seconds. My crippled rod curled and twisted until I could hardly hold it, as I crowded on the brake, for the last few feet of line were rapidly slipping off the reel. I held his head high and kept him close to the shore so he could not have the help of the swift water.

A little below me the creek turned sharply, and it was evident the bass was either unacquainted with the place or too excited to notice it, for instead of making the turn he shot clear out on the sloping gravel and flopped over into a pool of stagnant water, stranded high and wet.

A madder fish I never saw. He was so mad and full of fight that I had to rap him on the head to keep him from flopping himself to pieces and destroying his beauty. That evening I weighed him in the village grocery amid a crowd of admiring spectators. He tipped the beam at 7½ pounds.

CURIOSITY.

Made with an Eastman Kodak and a Bausch & Lomb Lens.

A YUCATAN SHARK.

JACQUES H. TRACY.

Perched on the ship's rail, we parboiled under the hot Mexican sun, and intently watched the rapid motions of a shark coquetting with the ripe pork at the end of our line. He could not decide to take it, as it was Friday, so our hopes were alternately raised and dashed as he one moment popped up and circled around the bait, then dived out of sight. A Northern constitution can not long stand a thrill a minute, under such a sun, so we gave him up at last, and retreated to the smoking room. As the soothing aroma of good tobacco sifted through the air, the chief became reminiscent.

"The shark census has fallen off somewhat here," he said. "There used to be a dozen for one now; and such pampered tastes as these have! That fellow's been turning up his nose at the cook's good pork for the best part of the morning and it's an even chance that he'll not take it at all. We used to heat a shot red hot, rap it in a rag, and drop it overboard, and by the time it hit the water a shark had it. He made the water boil! The cook used to lower a bucket over the side for some of the water to boil eggs with! Once we were about a day's run from Progreso, when we spotted a shark in our wake. There was nothing remarkable about that, but he seemed as long as a skiff and as slender as a plank. After we reached Progreso the passengers concluded to catch that shark and see what was the matter with him; so they borrowed my tackle and we all piled aft, to see the fun. He took the bait and bolted, but we soon tired him out, hoisted him aboard and I shot him. When he had stopped slapping around, a Mexican produced a carver from somewhere about his raiment, which consisted of shirt and drawers, and slit the shark open."

"Of course you found your great grandfather's gold plated Waterbury, which had been dropped overboard at Hong Kong, still keeping standard time?" we queried wearily.

"No," declared the chief, "the coroner's evidence showed that the shark had swallowed an empty water cask, open end out, and everything he had eaten in weeks had gone into that barrel. He starved to death."

DOG DAYS.

A. N. KILGORE.

Sho,
Feel too dog-gone lazy t' live.
'D like t' stop my works jes' a minit
An' let 'em rest. Gee whiz!
What wouldn't I give
T' flop right down 'longside some crick
An' do nothin' 'cept watch th' skate-bugs,
An' let th' shadders play peek-a-boo
Over my homely features.
Don't b'lieve I'd want t' watch th' bugs nuther—
Too much trouble. Let 'em watch me.
Nope, wouldn't want t' fish. T' much like work.
Wouldn't want t' do nothin'
But lay there an' mope.
'Twould make me tired t' even hear th'
Crickets workin' thereselves t' death.
'Twould by jing.
'D have t' shet my eyes
So 's I couldn't see th' leaves
A wigglin' 'round on their rickety stems.
Wind's doin' that.
Why in thunder don't it stop workin' too?
No,
I b'lieve I'd let it blow.
'Cause if it stopped, I'd have t' fan. An'
I ain't real stuck on that idee.
'Nother thing. I wouldn't want
T' hear no potterin' stream
Sloshin' over no rocks.
'Twould be too irritatin' t' my nerves.
Stream 'd have t' shet up while I was there.
An' if any feller come monkeyin' 'round,
Abustin' up th' harmony o' my surroundin's,
After I got settled,
I'd settle him.
Only 'twould take too much trouble.
Oh, Hanner! But how
I could loaf jes' about now.

AMATEUR PHOTO BY ANDREW EMERINE JR.

AN IRISH STEW.
Highly commended in RECREATION's Sixth Annual Photo Competition.

AMATEUR PHOTO BY J. F. NEWCOMB

REACHING.
Made with Premo Camera.

MOOSE FOR DINNER.

GEO. H. ROOT.

October 11, 1898, I started with T. A. Strait, an old time hunter, trapper and guide, on a 30 days' hunt for big game. Thad is a dead shot, an expert with the rod, and an ideal hunting companion. I was intensely proud as I climbed on our wagon, behind 4 ponies, and rolled away to the North, where in the distance shone the snowy peaks of the Rockies.

Before we had gone 5 miles Mr. Strait had bargained with me to take it day about rustling camp meat and it fell to my lot to get game for supper. I got it. Just before we went into camp I caught sight of 2 lean, old sage cocks, and when they raised I dropped them both. Mr. Strait objected strongly to that kind of diet, and said many times before we started home, that he wished he had agreed to furnish all the camp meat himself.

Nothing broke the monotony of our desert drive until we reached Cottonwood creek, where he saw thousands of antelope.

By October 22d we were settled in our permanent camp. One morning we saw a band of elk coming down the mountain North of the camp. They were about 200 yards away, and in less time than it takes to tell it, each of us had one down. The remainder of the band had turned into the timber and were out of sight. We had shot them from our very door, and only 125 yards away. When we saw no more were coming we finished our breakfast. It took us till noon to take care of our game. We spent the remainder of the day in the mountains and saw many fresh elk signs. At night a bunch of 10 or 12 came within half a mile of our camp.

The next day, as I started to climb the long mountain slope, to get out of the canyon, I could see, away to the Northwest, a snow storm coming, and, by the time I had reached the top it was upon me. From the top of the mountain I plunged directly into the dense forest, out of the storm, and suddenly found myself on a high precipice overlooking the North branch of Horse creek, thence down the steep mountain side, to the lead of the creek. I followed the creek about a mile and turned into the forest, where I came upon a trapper's deserted cabin, buried away in the thickest of the forest. The door, which was made of elk skin, stood ajar. I pushed it wide open with the end of my rifle, and a wild commotion followed. I thought I had disturbed a meeting of wildcats, or a family of bears. It was too late to retreat honorably, so I ventured a peep within. It was only wood rats, hurrying and scurrying they knew not where, only to hide. Inside the hut, and strewn on the dirt floor, were skeletons of bear paws, so closely resembling human bones, that the sight of them made me shudder. On the floor and nailed on the walls were skull bones of all the animals that belong to the mountain. I did not stay long in that gruesome place.

October 30th I made my record. Mr. Strait had gone out early to look for elk, while I stayed in camp to do our week's washing. I had my laundry spread on the sage brush, and had started dinner, when I stepped to the tent door and saw a moose standing not over 100 yards away. At first I hardly knew what it was. I do not know how long we stood looking at each other when I remembered I had a gun in the tent. In the few seconds it took me to step back and pick up my gun, the moose had started to climb the mountain. When I returned, gun in hand, ready for action, he had gone over 75 yards, at a swinging trot, and was just entering a belt of timber. I fired, tumbling him in a heap. Of course, it was a scratch, but I did not care. I had the moose.

Somehow I had no desire to rush up to my moose, but went about fixing my dinner for fully 20 minutes before I strated to climb up to him. During that period I had looked at him several times, but could not see him move, and it puzzled me to know why he did not struggle. When I started to climb up to see how he was getting along I took sounders on him. I was slipping along cautiously and was not more than 40 yards from him when I stepped on a dry brush. My blood chilled when he jumped to his feet and began to look for me! He was bristling all over and gave a snort that could have been heard a mile. Thanks to the protection of a small pine tree behind which I was standing, he could not see me. While he was searching in the direction of the sound he had heard, I let him have it square in the face and down he went again. That time I felt sure he was down for good, but not so. I kept above him, and behind the pine tree where I could see him and wait for him to die. It seemed he had no notion of dying, however. After waiting a while I threw a small stick which struck him fairly on the side and up he came. That time his attention was riveted on the spot where I had stepped on the brush, and I was in the rear. Blood was streaming from his nostrils, his long shaggy mane, or hair, seemed all standing on end, and he looked,

indeed, a formidable foe. I was in no mood to view his grandeur, but put a ball at the butt of his ear, which finished him.

My first shot, from the tent, had creased him. This method is frequently used in capturing horses. It stuns the animal for a short time only, and seldom proves fatal. When creased, an animal will lie apparently dead 5 to 25 minutes. It will then suddenly spring to its feet, and if it has not been tied securely away it goes.

My second shot was a trifle too low to break into the brain, and would probably have killed him in time. My third and last shot that struck the butt of the ear, went direct to the brain and ended his struggles.

CHAPMAN'S POND.

W. T. DUNCAN.

I know a lake near a mountain side
That rises and falls with the flowing tide;
For between the lake and the river clear
A raceway runs athwart the mere.

And the river runs to the sound afar,
Till it weds the sea at Saybrook bar;
Going and coming from tide to tide
With the grace of a coy, reluctant bride.

On its edge the willowy wild oats grow,
And mirror their wealth in the flood below;
There the wood duck floats on its placid breast,
And the marsh wren buildeth her swaying nest.

Here the rail birds rise in their short-winged flight,
'Neath its sheltering arms again to light,
Screened by its growth from the piercing eye
Of the fleet-winged hawk that soars on high.

By its wooded edge you can hear the hum
Of the ruffed grouse sounding his amorous drum,
While over its waves the swallows dart
With a grace surpassing the hand of art.

Beneath the water that laves the edge
The pickerel hides in his home of sedge,
On eager watch for the prey that glide
Along with the shimmering, limpid tide.

Away on the mountain's noble crest
The eagle builds his eyrie nest,
Where a forest giant stricken dead
Defiant rears his ghostlike head.

One cottage alone these shores doth grace,
Built by a hermit that loved the place;
A man who from boyhood had known the spell
Of each leafy nook and woodland dell;

Who sought, when the city's strife was o'er,
Repose and peace by its verdant shore,
And breathed his las' 'neath the sheltering wood,
With a name unknown for aught but good.

Oft by his sunlit, shadowy shore
I cleave the waves with the dripping oar;
Secure 'mid this scene of calm repose
From the world outside, with its wiles and woes.

"There's some talk of a lawyers' trust."

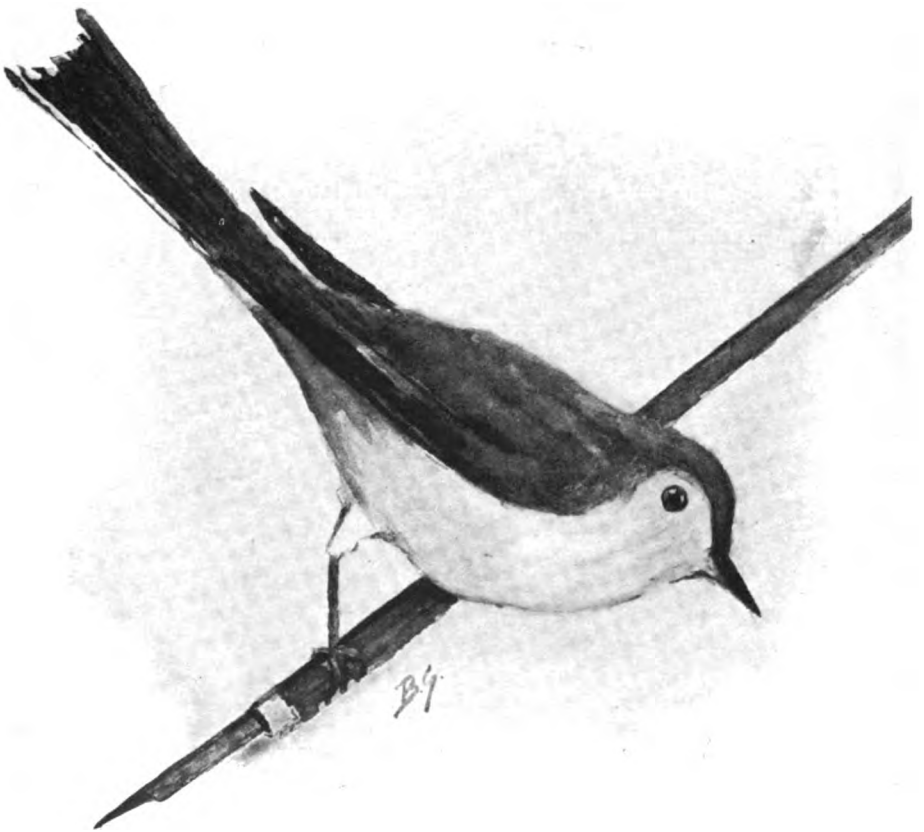
"Indeed?"

"Yes; and it is said they'll make a specialty of drawing up anti-trust bills for the legislatures."—Puck.

THE STORY OF TINY TIM.

BOYER GONZALES.

With flash of lightning, mutter of thunder, torrents of rain, and the wailing of a fierce Norther, Tiny Tim came. He was a bird, scarcely larger than a hummer, known to ornithologists as the cerulean warbler, or little bluish grey flycatcher. He had probably left his Northern home the previous fall, and, following his instinct, had become an aërial wanderer, drifting far into the tropics, like a bit of paper, on an air current. With returning spring there had come within his tiny breast the usual resistless impulse to visit his far away Northern home, and with admirable fortitude he had started on his long journey of 2,000 or 3,000 miles, guided by no one knows what. About one-third of the distance had been accomplished, when he had been overtaken by the terrific sub-tropical storm. Unable to battle against it, he was dashed into a showcase window of a gun store and fell insensible to the floor. He was picked up and tenderly cared for. In a few minutes he revived and soon became bright and lively again. He was so frail that the pressure of a finger and thumb would have made him a shapeless mite, yet we knew that since his advent into the world he had yearly flown more than 1,000 miles from his Northern home into the tropics and back, flying with faith and instincts that none can explain.



BREAKFAST TIME.

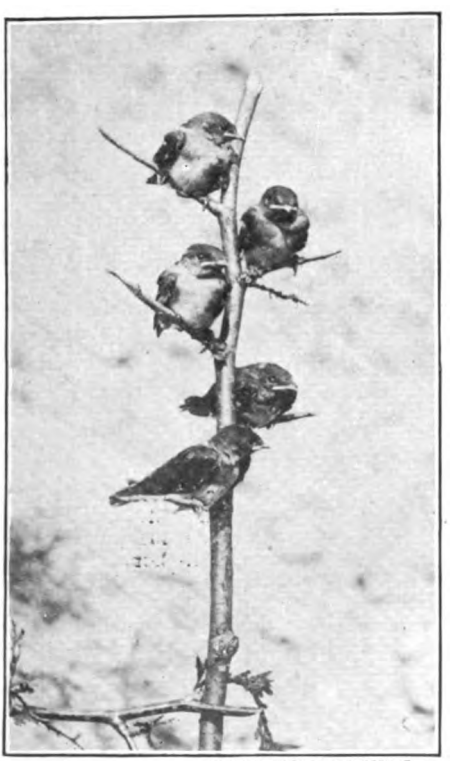
From the first he showed no fear of man, but would perch on our fingers, and preen himself and ruffle his feathers saucily. Small wonder that we grew attached to him. He had injured one of his wings, and although he made frantic efforts to catch flies he could not be quick enough. We took the cue, and thereafter everyone

became a flycatcher and the little fellow lived like a prince. He soon learned from what source his food came, and had a cunning fashion of hopping down on the end of a penholder, held in a pen rack, and waiting for someone to feed him. He had no favorites, but would sit contentedly on anyone's hand.

He greatly enjoyed sun baths. The mite would take his position in the center of a flood of sunshine and revel in it, pecking at unlucky flies, arranging his feathers, and stretching his wings. His enforced visit had been noted by the local papers, and many ladies and children called daily to see him and pay him homage. Perched on someone's fingers he would be taken to various windows, where flies were bumping their heads in vain efforts to get out. These flies were doomed. The little fellow never missed them.

As dusk approached, Tim would hop along his home, a great standing desk, jump up on the pen rack, from there to the gas jet, and then on to the bracket that supports the globe. There, hidden, with the exception of his tail, he would tuck his head under his wing, and bid the world goodnight. Morning found him bright and hungry, and his appetite surprised us. His hunger satisfied, he would then enjoy a bath, and dry himself in the sun, after which he assumed control of his desk. He was one of us

For 10 days, Tiny Tim lived a happy life, winning great admiration and affection, and a bountiful supply of food, but he was destined to meet a tragic death. No cat or rat took part in the tragedy. Woe unto either that had been seen in the vicinity! One morning, while jumping at a fly, and not having the perfect use of one wing, Tim fell into a tin envelope holder and broke his neck. His death cast a gloom over the whole office.



AMATEUR PHOTO BY C. C. SPEIGHT.

ON THE WATCH-TOWER.
(Sand Swallows.)

WHITTIER'S GIRL ON A TROUT STREAM.

FRANK WHITE.

Maud Muller on a summer's day
Whipped a trout stream far away.
Deftly she cast with hook and fly,
But some way or other the trout were shy.

Now, Maud, she was a city lass,
And, of course, her rig was A first class;
Her tailor-made suit was up to date,
And her split bamboo of very light weight.

Her form was lithe and her face was fair,
But the slippery rocks made her fairly swear;
She whipped the stream for many a mile,
And then sat down to rest awhile.

A country boy, with a pin for a hook,
Came slowly wandering toward the brook.
He cut him a pole and bent his pin,
And then proceeded to wade right in.

Late that night, on her way to camp,
With both feet wet and hair all damp
Maud mused like this, "Had I a pin,
There is no telling what there might have been."

She (in the midst of the quarrel).—Oh! I wish I were a man!

He.—So do I! You'd have me to fight, right now!—Puck.

IN THE COAST RANGE.

A. W. BITTING.

One day in the latter part of August, 1897, found me on board a Santa Fe train *en route* to join a friend in camp in the mountains of Southwestern Oregon, 40 miles from the coast. After leaving New Mexico the trip through Arizona and California was new to me. Occasionally I caught sight of small game from the car windows and the ever changing aspect of the country was of great interest. All too soon I reached Grant's Pass, Oregon, where I was cordially greeted by my friend A. Early next morning we set out, each mounted on a tough mountain pony, followed by 3 large burros carrying our camp outfit. We crossed beautiful Rogue river, a rushing mountain stream stocked with salmon and trout and said to hold in the crevices of the rocky bottom much glittering gold. Entering the foothills of the range, we followed the stage road 20 of the 50 miles to camp. Our way wound in and out of beautiful groves of tall pines, spruce and other evergreens, madrone, pepper, hazel and many varieties of trees and shrubs unfamiliar to me. Salmon, sarvis, red, black and blue huckleberries and other wild fruit were met with all along the way, and there was abundance of wild oats and grass for the horses. Large grey squirrels pretended to be scared at our intrusion and hurriedly scampered up the trees, and the tamer and more plentiful pine squirrels scolded us from the limbs of trees overhanging the road above us. While squirrels have furnished sport for innumerable hunters and filled many a camp kettle in time past, they are free from danger as far as I am concerned. Other game animals and birds may be just as innocent and deserving of protection, but I have the strongest attachment for squirrels and have ceased to find pleasure in destroying them.

By noon we came to a large branch of Rogue river, then at a low stage of water. While A. selected a resting place and cared for the animals, I adjusted my Bristol rod and took a stroll down the stream. Coming to a likely pool I dropped a brown hackle over its foaming surface and it had hardly touched the water when it was taken with a rush. I was out of practice and taken by surprise. I came near losing my first Coast range trout; but with the sweet singing of the reel, my old time skill came back. After a few wild lunges and struggles for freedom a one pound fighter came to land. Several smaller ones followed, out of the same pool, and although the sport was most alluring, I had enough for our dinner and rolled up my line. We soon had them in the pan, sizzling over a fire of pine cones.

To fry trout or any small fish properly, rub salt on the inside, roll in corn meal, or cracker dust, put in plenty of lard or equivalent and fry slowly over a slow fire. They will not burn then. The idea advanced by young campers that when cooked in much fat the fish absorb it and become greasy is incorrect.

The markings on these trout and on all I caught afterward in the streams of the Coast range consisted of dark, grayish, block like figures, instead of the bright red spots I had been so familiar with in New Mexico and Pennsylvania. The Coast range trout are gamy and in streams where not plentiful and that have been fished over they are very wild.

After a delicious dinner of trout, huckleberries and sugar, with condensed milk, thanks to the individual who first thought of condensing milk, we resumed our trip. The road gradually lead higher into the range. Huge rocks, covered with luxuriant mosses, ferns, vines and flowers, lined the road. Small streams of crystal water rushed headlong down the mountain sides, forming sparkling cascades in their course; and the banks were lined with flowering shrubbery and ferns of many kinds and sizes. Water ousels disported themselves in the spray under overhanging boulders and fallen trees, while humming birds and wild bees sucked sweets from the innumerable flowers. The scenery was so enchanting that it was with the greatest reluctance we could move along.

Toward evening we reached the town site of Selma. I say site, because there was more site than town. The latter consisted of one house, comprising postoffice, store and general information bureau for the neighborhood. The trail to camp there diverged from the stage road and a mile farther brought us to Mr. T's, where we put up for the night. The supper and breakfast set before us by Mrs. T. were most excellent.

Next morning we hit the trail early, following Deer creek to its junction with the Illinois river, and then down the valley of the latter stream. Not much valley along these mountain streams, as the mountains generally come down precipitously, close to the water's edge, and in following the streams, long detours are often necessary. These are the roughest and most tumbled of mountain ranges I ever saw. Deer, cougar and wildcat tracks were fre-

quent and plainly impressed in the dust on the trail, and we kept our eyes open for possible sight of the owners, but nothing larger than chipmunks or squirrels came to view. There are some bears in these mountains, but I did not see any. Occasionally the whir of a blue grouse or a pheasant broke the stillness of this quiet region. One of the former came to my gun and made part of our noonday meal.

Early in the evening we reached the crossing point of the Illinois river, the main branch of Rogue river, deep and shallow at intervals. The bed and banks are solid rock, worn smooth as glass and honeycombed in places. Huge rocks, solitary and in groups, loom along the banks of the river at frequent intervals. On the tops of many of these I often found well-like holes, containing several barrels of water. On others pine, spruce, shrubbery and vines were growing, making scenery grandly picturesque. This part of the country is seldom reached by tourists. A few prospectors and miners are its only visitors.

My friend gave a loud "hello," which brought from his cottage "Old George," who crossed the river in his boat. We loaded our traps into it and rowed to the other shore, holding one of the horses with a lariat, the other animals following the leader. I found George quite a character, and a "mine of information" regarding the vicinity. He had been miner, rancher, hunter and gardener, having lived in that location several decades. In that time he had reclaimed several acres of ground from boulders and timber, making himself a fine garden and orchard. By diverting water from a stream near, he was always sure of raising vegetables and fruit, thus creating a little paradise of a garden in this otherwise wild region. He invited us to spend the night with him and he sat before us a most excellent supper of deer's liver, biscuits, wild honey, fruit, etc. His log cabin was roomy and a model of neatness and good housekeeping. Several shelves were stocked with well thumbed editions of English and German standard authors, while late periodicals and papers covered the table. Fur rugs were on the floor and numerous antlers adorned the walls, serving as racks for guns, spears and other implements of the chase. George gave us a history of his eventful life in these mountains and I became a willing listener to his truthful tales of adventure with bears, cougars, and other animals of the vicinity. His most exciting and dangerous scraps, however, had been with Mexican and other outlaws.

The next morning we reached A's camp. Carl V., a bright young German, A's mining partner, and "Sooner," his hunting dog, were the sole occupants. The camp was on a bench on the side of one of the tallest peaks, half a mile from Rancherer creek. Pine, spruce, and madrone trees were scattered singly and in groups and the ground was covered with short grass, thus giving the place a park-like appearance. A strong spring of ice-cold water gushed from among the rocks. The stream leading from the spring was lined with wild honeysuckle and numerous other fragrant flowering plants and the air was delicious with their perfume and the exhalations from evergreen. There was a large flat rock on the top of the peak high above us, and during my visit I spent many a pleasant hour there watching, with a strong field glass, the sails of vessels on the Pacific. To the East and Northeast the snow-capped peaks of the Cascades arose, while to the Southeast the Siskiyous and grand old Shasta loomed. In all directions were mountains, as far as the eye could see.

My companions were quartered in a tent, and after I had set up mine I spent several days in making a bedstead, table, chairs, etc. When they were completed we had a model camp. I then made a visit to the mine and was so impressed with the financial outlook that I arranged for an interest in the property, a quartz prospect on top of a high butte, half a mile from camp. A. and V. worked the mine, while Sooner and I took charge of the camp, keeping house and furnishing the table with choice venison, grouse, pheasants, wild ringneck pigeons and quails. Our board was varied by fruit from George's orchard, and wild fruit from the vicinity of camp, huckleberries being especially plentiful and of fine flavor. They were most delicious with sugar and milk or made into pies and puddings. Salmon and trout were to be had for the taking. Being 50 miles from the nearest butcher shop we depended on deer for our fresh meat and I could always get a blacktail in a day's hunt.

I never shot at deer unless we were in need of meat and I therefore had frequent opportunities of studying their habits. One morning while sitting under a large pine tree, watching the opposite mountain side for deer, I turned my head and not more than 15 feet from me stood an old doe, intently looking me over. She stood but a moment longer and one jump into the brush hid her from view. I can still see those large innocent eyes staring at me and I feel glad that I had no opportunity to shoot her.

In the spring and fall salmon, though plentiful, would not take the fly or bait. When we wanted one we would either get it with a rifle or with a long pole with a hook fastened to the end. This may not have been sportsmanlike, but it required some skill. When standing on a slippery

rock, feeling around in a pool for a fish and when found and hooked fast to him it was often a question whether I would get the fish out or *vice versa*. The salmon weighed 5 to 30 pounds. Salmon trout would take grasshoppers, and mountain trout both hoppers and the fly, preferring the former. During June and July lamprey eels ascended the river to spawn and thousands of them could be seen clinging to the rocks and slowly working their way over the falls in the river.

A quarter of a century ago this region was a busy mining camp, many of the creeks having been rich in placer gold; but they have been worked out and the mining now is confined mostly to quartz and copper mining, with some placering along the Illinois river.

There were a few features of this camp life that were not pleasant. Poison oak, rattlesnakes, yellow jackets and innumerable bugs and insects had no charms. Rattlers were plentiful, and while not seemingly vicious, were often too close to be agreeable. In going along the trail I frequently found them coiled up, and on several occasions I had to make a swift hop, skip and jump to clear them. With the poison oak I was less fortunate. I got a dose of that, causing me intense suffering for more than a month. Applications of carbolic acid and glycerine, as strong as the patient can stand it, are probably as effective as any remedy. One should never go into that country without a supply, as well as whiskey for possible snake bites. Yellow jackets were so plentiful that at times it was almost impossible to eat a meal without some of them passing in, and there were frequent occasions on which one's early Sunday-school training came into requisition. A piece of meat hung up would be eaten by yellow jackets in a short time. I killed a large rattlesnake and laid it on a log, intending to take a camera shot at it later; but a few hours afterward there remained only the skeleton.

As the time of my friends was constantly required at the mine, Sooner and I made frequent jaunts into the surrounding mountains, often going long distances, and frequently passing the night in some deserted cabin or rolled up in a blanket under a pine or spruce. I always felt safe from prowling "varmints," as my faithful dog was ever on the alert.

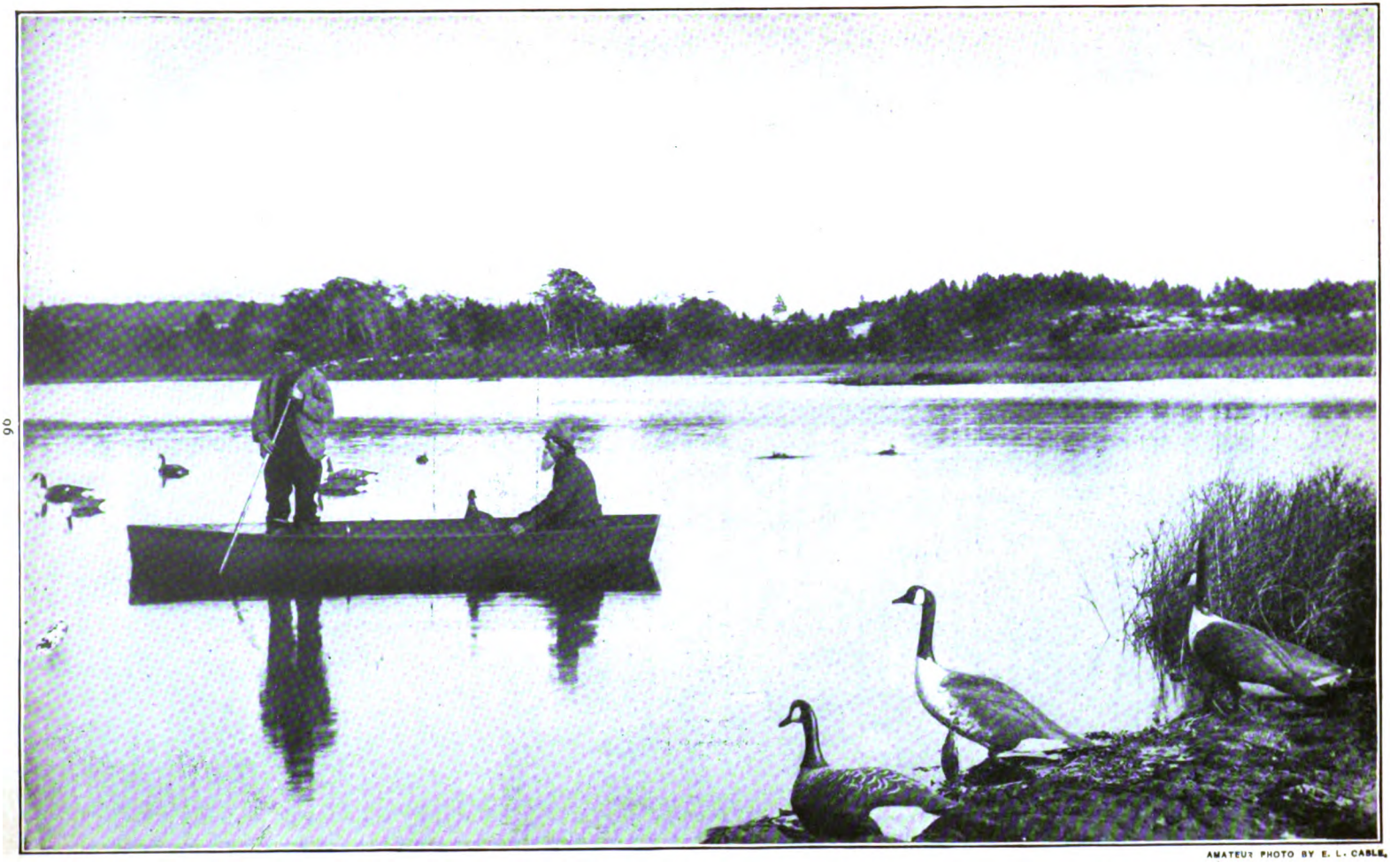
I spent the greater part of a year in this camp and after bidding my friends a reluctant adieu, I took the stage at Selma for Crescent City, California. The route was through pine and redwood forests, rhododendron patches and mountain scenery of surpassing loveliness. I stopped several days at Smith's river, a large stream full of gamy trout. There I cast my last fly. I found the fish, being nearer the coast, larger and gamier than any I had previously taken.

From Crescent City to Frisco I spent most of the time on the deck of the little steamer, watching the blowings of the numerous whales and the skimming hither and thither of the gulls, ducks, snipe, etc. I know of no part of the country where a summer or winter can be spent more agreeably than in the coast mountains of Oregon.

AMATEUR PHOTO BY N. POMEROY JR.

HOME OF THE WHITE FACED HORNET.

Circumference 3 feet 7 inches, one way; 4 feet 4 inches the other



AMATEUR PHOTO BY E. L. CABLE.

PUTTING OUT THE DECOYS.

THE BIRD OF SOLITUDE.

EDWIN I. HAINES.

On the summit of Bald Top mountain, of the Catskill range, one evening in July, 1895, I became acquainted with the grey cheeked thrush. I had been collecting specimens all day on this peak, and as the sun was setting I began descending the mountain. Presently from far above me, somewhere in the heart of the balsam forests, I heard the rich organ-like notes of "a bird in the solitude singing." I stopped and listened, for the song was unfamiliar, and for a wild bird's song, one of the most beautiful I had ever heard. It was the song of some species of thrush, I knew, but the singer was not a wood, Wilson's, olive backed or hermit. Those songs I was familiar with. What one, then, could it be? This question I settled next day, for by patient waiting I at last secured one of these beautiful songsters, and when I reached home in the fall it was identified as the grey cheeked thrush.

The 2 succeeding summers I made careful search of other mountain peaks in Delaware county for evidence of this bird, but obtained none. It was not until I visited Slide mountain that I again met with it. While collecting there on the 10th of June, 1898, I shot a thrush which I supposed was an olive backed, but on close examination I found it was a grey cheeked. Wishing to make a careful study of this little known species, I visited the Slide again on the 12th and camped on its summit until the 18th. During that time I had ample opportunity to study the bird's habits and listen to its song.

Slide mountain stands at the head of Big Indian valley in the heart of the Catskills of Ulster county, and rises 4,220 feet above sea level. It is a lonely, desolate peak, surrounded by broad, open valleys. Its rocky summit is covered by a sparse growth of stunted pines and balsams, but its bird and animal life, being strictly Northern, are specially interesting. Grey cheeked thrushes are common on this mountain, but are so shy it is difficult to get near them. You can never get to them, but if you are patient they will sometimes come to you. Often I have crept on hands and knees toward the tree whence the song came, but when I reached it, the song would come from somewhere else. All my toil had been in vain. During my entire stay on the mountain I obtained but 4 specimens. To get these I sat hours in one spot, cramped, half broiled by the sun, and nearly eaten alive by black gnats and other pests that swarmed there. This bird, hitherto the only member of the thrush family supposed to summer beyond the limits of the United States, has only been found in summer on the 2 peaks mentioned, Bald Top mountain, 3,800 feet high, Delaware county, N. Y., and Slide mountain, 4,220 feet high, Ulster county, N. Y. These 2 mountains are similarly situated but lie over 50 miles apart. These 2 places must afford conditions more favorable as summer homes for this thrush than other places.

Every kind of bird seems to voice some phase of nature. The bobolink sings for the sunny meadow, the oriole for the shady treetop, the bluebird for the blue sky, the towhee for the blackberry brambles, the winter wren for the roaring brooks. The grey cheeked thrush sings for the lonely mountain peaks, and chants his *Te Deums* for sunrise and sunset. Our camp on the mountain summit was often serenaded by this beautiful songster, sometimes at the break of day, but oftenest at dusk. The last evening on the mountain, while my assistant was cooking supper, and packing up for the morrow's departure, I strolled toward Lookout rock, to see the sunset and listen to the grey-cheek's vespers. As I went along, watching the red light slanting across the neighboring mountains, and the dark shadows creeping up from the valleys, I was thrilled with his song, but not till I had reached the rock overlooking the valley, and the dark line of wooded mountains beyond, not till the summer sun dropped behind the dark peaks, and the rosy afterglow of the sunset was turning to pale serene light, did the song of the grey-cheek most deeply stir me with its richness and beauty. Then from the dense balsam thickets it came to me, filling the cool evening air with its tremulous, pathetic yearning, gathering up into short waves of song the silent music of the sunset—God's message of peace.

"Papa, what is a marriage in high life?"
"Two vacant hearts entirely surrounded by cash."—Life.

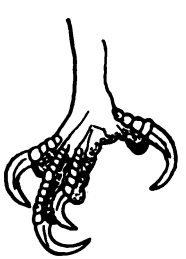
BILLS AND FEET OF BIRDS.

GEO. C. EMBODY.

Why is the bill of a hawk hooked? Why is the foot of a duck webbed? Is it because the foot of a duck is webbed that it swims about in search of food; or is it because the bird swims about that its foot is webbed? The latter is the likely case, for the former is antagonistic to the theory presented by Darwin. Again, the *Gallinules* of certain islands in Southern seas can not fly. In those islands, where food is abundant and no enemy is known, the ducks have no further use for their wings; and in the course of many centuries, through disuse the wings have become so small that the power of flight is lost.

The external features of the hawk (figs. 1-2), present admirable examples of adaptation. He is ever on the alert for some unsuspecting field mouse, squirrel, frog, chicken or even snake. This prey must first be sighted from a distance, so we find hawks possessing eyes far superior to those of other creatures. The feet have large, not too long, toes, 4 in number, which support long, sharp, powerful claws for holding the struggling victim after the well aimed dash has been made. One blow from the huge hooked bill makes the sufferer forever insensible to pain. The hooked bill was made for another purpose also. Since the hawk's food consists largely of small rodents which can not be swallowed whole, it is necessary that he possess an instrument for tearing and pulling away the fur and flesh. To be sure, the bird is generally too hungry to separate the fur from the meat and thus swallows both with apparently the same relish, the fur being afterward cast out. What instruments could be more economical than the powerful clawed foot for striking and grasping and the hooked bill for tearing?

1. Bill of the Hawk.



2. Foot of the Hawk.

3. Bill of the Owl

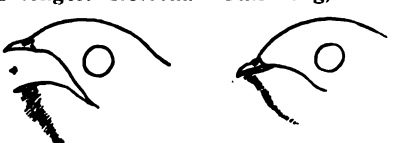
The sharp, chisel-shaped bill is an instrument made purposely for the use of the woodpecker in cutting his home out of a partially decayed tree and digging out the vermin which infest the trees (fig. 4). The bird goes at his task in a business-like way, hammering first on one side and then on the other, causing the chips to fly in every direction. When the insect is reached the sharply pointed, barbed tongue, backed by a pair of well developed muscles, which encircle the skull, darts out, impaling the unfortunate insect. The 4 toes (fig. 5) 2 in front and 2 behind, are well placed for clinging to the bark, be it smooth or rough; and the stiff, pointed feathers of the tail serve as a brace for the heavy blows which are dealt, and prevent the bird from falling backward when resting.

4. Bill of the Woodpecker.

The nighthawk and the hummingbird secure their food in a different way, the former catching insects with wide open mouth while continually on the wing, the latter suspended on wings before a flower, picking out the minute flies and ants which are attracted by the nectar and occasionally helping himself to the sweet liquid. In the nighthawk we find a short bill at the extremity of a mouth (fig. 7) so wide that no insect could hope to escape, while many might be taken at one time. Very different is the bill of the hummingbird (fig. 8). Long and slender, it will reach an insect at the extreme end of the largest and longest blossom. This long, slender bill has still another use, that of feeding the young. Most young birds could be fed with short bills as well as with long ones, but not so with young hummingbirds. The food must be regurgitated, during which operation the bill of the parent must be thrust far down the little one's throat, where it remains 4 or 5 seconds without causing the least unpleasantness to the young bird. These 2 species have no spe-

5. Foot of Woodpecker.

6. Bill of the Flycatcher.



7. Bill of the Nighthawk.

8. Bill of the Hummingbird.

cial use for large, strong, well-developed feet, with sharp nails, so we find them possessing mere apologies for feet, which are barely able to support the weight of the body while the individual is resting (fig. 9). Instead of sitting up straight with legs extended, both species sit with their bodies close to, if not actually resting on the limb, the nighthawk always lengthwise.

9. Foot of the Nighthawk.

Everyone is acquainted with a few species of the family *Fringillidæ*, sparrows, finches, grosbeaks, etc. The same general type of bill exists in every species of this, the largest family of birds, namely, the short, stubby bill, operated by well-developed muscles and capable of comparatively great crushing power for cracking seeds and other hard substances (figs. 10, 11, 12). In autumn sparrows and finches feed almost exclusively on the seeds of obnoxious weeds along fences and in the fields. As a rule the nutritious material is covered by a shell varying in hardness. A few species of other families, as the horned larks, blackbirds and meadow larks, eat the seeds without cracking them. They have longer bills, which are better adapted for other purposes; but the sparrow must crack his seed and eat only the choicest morsel within. Thus he possesses the short, stout bill most useful to his manner of eating. As we look from sparrows to finches and from finches to grosbeaks we find this type much exaggerated, reaching its culminating point in the grosbeaks, where it is nearly as thick at its base as is the skull. Grosbeaks are often seen crushing frozen buds in winter, to get at some worm or larva form within. At other times they may be seen among the conifers extracting the hard seeds from the cones. Our resident grosbeaks during spring and summer seem to prefer certain hard-shelled beetles for a diet. In all of these cases the short, stout, hard bill renders valuable service. In one species of this family, the crossbill, we find a special form of bill. This irregular wanderer, disobeying all rules of migration, whose reappearance can not be foretold by the most learned philosophic ornithologists, possesses a bill admirably adapted for extracting seeds from the cones of the pine. (fig. 13.) In late winter when the food supply of the birds has been considerably diminished, it is not a rare sight in certain localities to behold the American and white winged crossbills shearing off the ice-coated buds of the maple and elm trees, perhaps in search of small worms, since the most tender parts of the buds are strewn about on the snow beneath.

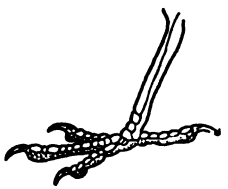
10. Bill of the Chipping Sparrow.

11. Bill of the Grosbeak.

12. Bill of the Purple Finch.

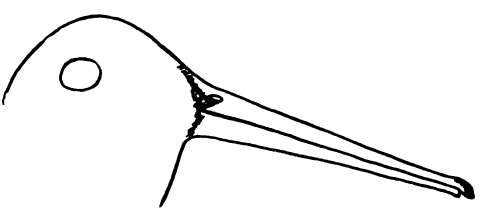
13 Bill of the Crossbill.

As a rule the bills of birds which search damp meadows, lawns and sometimes swamps for worms, are longer than those of the seed eaters, for a certain amount of probing must be done before the food is secured. They must also do much scratching to uncover certain choice bits. For this reason nature has provided for them strong legs and feet with rather long, sharp claws. (Fig. 14.) This type is characteristic also of the perching birds (order *Passeres*), which spend the greater part of their existence among shrubs and trees.



14. Characteristic foot of the Passeres.

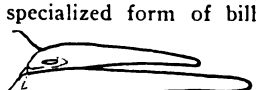
A highly specialized form of bill (Fig. 15), is possessed by the American woodcock (*Philohela minor*) and Wilson's snipe (*Gallinago delicata*), the former inhabiting swamps and alder thickets, the latter, damp meadows. The bill of the woodcock is slender and nearly 3 inches long. That of Wilson's snipe is about ½ inch shorter. The structure of the bill is peculiar in that it is flexible and that the tip of its upper



15. Bill of the Woodcock.

mandible can be moved independently of the lower one, enabling it to act as a finger and thus assist the bird in drawing its food from the ground.

Another highly specialized form of bill is that of the skimmer. On the Atlantic coast this family is represented by but one species, inhabiting the warmer regions. The skimmers are unique in their manner of feeding as well as in the form of their bills. In shape the bill is similar to a long



16. Bill of the Skimmer.

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blade, the lower mandible being much longer than the upper (fig. 16). Of their manner of feeding one writer says, "Opening the mouth, the bladelike lower mandible is dropped just beneath the surface of the water; then, flying rapidly, they may be said literally to 'plow the main' in search of small aquatic animals."

LONGING FOR THE COUNTRY.

C. M. DENISON.

As the city streets grow hotter, and the sun comes beating down,
And the rich and idle fellows have about all left the town,
It just seems to me I'd like to hie myself to some cool spot,
Where the business cares and worries of this life could be forgot;
There to rest this poor old body, just to loaf among the trees,
A-listening to the brook's soft tune, and the humming of the bees;
Just to live in some old farm-house, where they build the porches wide,
And the fragrant, dewy roses are a-blooming just outside;
Where there's miles of pleasant landscape built to please the weary eye
And a daisy of a trout brook ripples through the meadow nigh;
Where there's nothing special doing, and you nap beneath the trees,
Just a-listening to the music made by every passing breeze;
Where you go to bed at evening, and you sleep the whole night long,
And you wake up in the morning, feeling mighty good and strong;
And you eat till nearly busted, bread and butter, pies, and cake,
'Cause the victuals taste so nearly like those mother used to make.

AMATEUR PHOTO BY A. C. DICKINSON.

TRYING TO LOOK PLEASANT.

THE DEPARTURE OF THE BIRDS.

R. R. NICHOLSON.

Much has been written about the arrival of the birds in spring, but little of their departure in fall. This is but natural, for their joyous return from the South is far more interesting and significant than their departure in the autumn.

In Southwestern Ontario the nesting season of most birds is over by the time the hot weather begins. Many then go farther North, while others resort to the neighborhood of the lakes and rivers, where food is abundant. There they remain till moulting is over, and they have gained new, strong feathers for their long Southward flight.

Nearly all birds wear their most attractive plumage in spring, for the wooing and winning of their mates. They are conspicuous at that season because the trees do not yet have leaves to conceal the birds as they flit among the branches. By autumn the males have shed their brilliant nuptial feathers, have assumed modest traveling dresses of sober colors, and often male and female, old and young, are scarcely distinguishable. A few birds, however, such as the mallard and the bittern, always wear their richest and brightest colors in the fall. The male mallard moults while his mate is engaged in incubation, and by October he is clothed in all his splendor.

Moulting is a trying ordeal, which most of our birds undergo during the summer or autumn. A complete moult, which includes the shedding of the large quill feathers, takes place only once a year, but some species, like the ptarmigan, undergo a partial moult twice, and even thrice in 12 months. In spring the ptarmigan sports a variegated plumage of black, brown and white, but when nesting is over it changes its wedding apparel for a quiet suit of grey. When winter approaches, it comes forth arrayed in pure white, with feather snowshoes.

Some birds change color and appear to have moulted, without shedding a feather. This is due in some species to the transformation of the pigment of the feathers. The plumage of the redpolls does not actually change color, but in the spring the wide grey margins of the crown and breast feathers break off and reveal the glowing crimson, concealed before.

The moulting season varies in length, depending on the species. Ducks and geese are said to require but 4 weeks, while our song birds are slower. Birds of prey take the whole year to shed their quil feathers. As a rule, the large wing feathers are shed in pairs, one at a time from each wing, and thus the flight of the bird is not impaired. Water fowl drop all the quill feathers at one time and the birds, as far as flight is concerned, become entirely helpless. When moulting begins, however, they are always careful not to wander far from the neighborhood of water, in order that when danger approaches they may flee by swimming.

In the fall, birds are generally silent save for their call notes. Sometimes, however, in autumn a lonely bachelor croons a half-forgotten love song, or perhaps some young males indulge in tentative warbles. Only the other morning I was delighted to hear, in the heart of the city, a little house wren singing in a low, far-away voice, as it threaded its way through the woodpile; while in a neighboring garden some migrant white-throats were whistling in sweet, though defective numbers. Often rare visitors from distant Northlands abide in the garden a few days to rest, before resuming their Southern pilgrimage, but few are aware of their presence.

Herr Gätke, who for over 50 years studied the flight of birds on the island of Heligoland, has cast much light on the subject of their migrations. It was long believed that the old and experienced birds guided the young on their journey to the South at the approach of winter, but Herr Gätke was the first to call attention to the fact that the young birds are the first to leave in the autumn, the old birds following some weeks later. The young birds, however, are generally preceded by mateless males. These old bachelors, distinguished by their nuptial plumage, which, though faded and worn, they still retained, Herr Gätke found were the first to hasten South. In spring the order of the return of the birds is the reverse of the order of their departure in the fall. First come the old males in their finest plumage, then old females, followed by more females and young of both sexes, then young alone, cripples last.

The distances traveled by migrating birds vary from a few hundred miles to about 7,000. Most of our Canadian birds spend the winter in Mexico and the Gulf States, though a great many, such as sparrows, robins and meadow larks, remain in the country from Ohio to Louisiana. The cedar swamps of the Alleghany mountains, especially, are favorite resorts for the robins. The turnstone is a great traveler, nesting in Greenland and wintering in South America. The golden plover, likewise, nests in the Barren Lands above the Arctic Circle

and passes the winter in the West Indies. European birds migrate to Africa, the English swallows going to Natal.

Though most birds migrate from North to South, in certain countries they go from East to West. Richard's pipit nests on the steppes of Eastern Asia, but winters in France and Spain. The Royston crows, which breed in Siberia, travel in winter as far West as England, while the little bunting nests in the far East of Russia and spends the winter in France.

The first birds to depart in the fall are those whose means of sustenance are first cut off. Swallows live on insects, which they catch on the wing, consequently when harvest is over, evenings are cool and insects fewer, the swallows begin to think of their winter homes and toward the end of August take their flight.

One would expect the family of flycatchers to leave about the same time as the swallows, but they do not go till a few weeks later, for, when their supply of insects is exhausted, they turn to berries and other small fruits which they eat with relish. There are 5 common species in Ontario, the kingbird, wood pewee, phoebe, least and great-crested flycatchers. All are orchard birds. They leave for the South about the middle of September, the great-crested flycatchers going as far as Mexico.

The red-eyed vireo, having faithfully fulfilled its long ministry of song, departs for the Gulf States early in September, just when the Baltimore oriole visits the orchard on its way to the South. The bobolink leaves also in September. He is one of our most charming birds, coming from the balmy South early in May and flooding the meadows with his jingling notes. There is an ineffable charm in his festive manner, his fantastic dress, and his joyous song. He is the favorite of the poets. In autumn the males change their handsome summer clothes for modest traveling suits of yellowish brown, and on a calm evening they set out for the Southern rice fields, where they revel in gluttony during the winter. There they are known as reed birds or rice birds. They become very fat and, sad to say, are shot in large numbers as game.

About the middle of September that winged gem, the ruby-throated humming bird, starts for Central America, and is soon followed by all the warblers. How wonderful is the endurance that enables these little birds to sustain such long journeys in spring and fall. Late in September thrushes, catbirds, wrens, red-headed woodpeckers, flickers and mourning doves leave their summer haunts and migrate to their winter quarters. As October approaches, the vesper and song sparrows bid adieu. It is pathetic to hear a lone song sparrow striving then to sing. Its voice cracks when it reaches the trill of its song. As the month advances great flocks of bronze grackles, red-winged and rusty blackbirds and cowbirds darken the sky on their Southward flight. Flocks of wild geese and ducks then fly South and often the "honk, honk" of the wise old gander can be heard at night as he leads his wedge-shaped flocks through the sky. The last birds to leave are the robins, purple finches, bluebirds, meadow larks and goldfinches, though often many of the larks and finches remain during the winter.

A little Cambridge girl was discovered whispering in school, and the teacher asked:

"What were you saying to the girl next to you when I caught you whispering?"

The little culprit hung her head, and then replied:

"I was only telling her how nice you looked in your new dress."

"Well, that—yes—I know—but we must —the class in spelling will please stand up."
—Christian Register.

WITH THE SHORE BIRDS.

C. O. ZERRALIN.

One morning near the end of August my friend R. and I started for the beach. A gentle Southwest wind was blowing and we felt assured that sport would not be lacking. After a brisk walk of about a mile and a half over the cool sand in the glorious early morning air, we reached our box. The decoys were soon set out, and then we sat watching the red sun rise over the dashing surf.

Suddenly we were brought to life again by a plaintive "phee-in-wee."

"Beetle heads," whispered R. and we answered in seductive tones. Down the beach they came, 4 blackbreasts, straight for our decoys. "Crack, crack, crack, bang!" and 3 plovers lay on the sand.

It was not long until a pretty bunch of redbreasts visited us, and departed minus 5 of their number. The flight had really commenced, and large bunches of peep were circling up and down the beach. Now and then we heard shots down the flats, but we had the first crack at the birds, thanks to the wind and our lucky draw of box number one.

We had scarcely retrieved the redbreasts, when a pair of winter yellowlegs came in. Much to my disgust I missed with my first barrel, but scored with my left. R. nailed his bird, and our bag was beginning to look formidable. Then came a lull, but not for long. We heard the inimitable whistle of a big willet. He came in most unsuspiciously and a minute later he lay under a covering of cool seaweed, with his unfortunate cousins.

A pair of gaudy "chickens," or turnstones, then gave me a chance to get the laugh on R. He missed his bird with both barrels and I nearly gave him heart failure, and myself also, by making a neat double. He, however, made up by killing 4 stilt out of 6, while I was cursing over a swelled shell in the breech of my gun. The stilt, by the way, used to be rare in Massachusetts, but during the last year they have been shot in large numbers. The afternoon before, 3 of us knocked 18 out of one flock.

Suddenly R. pointed up the beach, and we saw a large flock of summer yellowlegs heading for our decoys. We poured 4 charges into the well bunched birds, and gathered up 9 of the fat little waders.

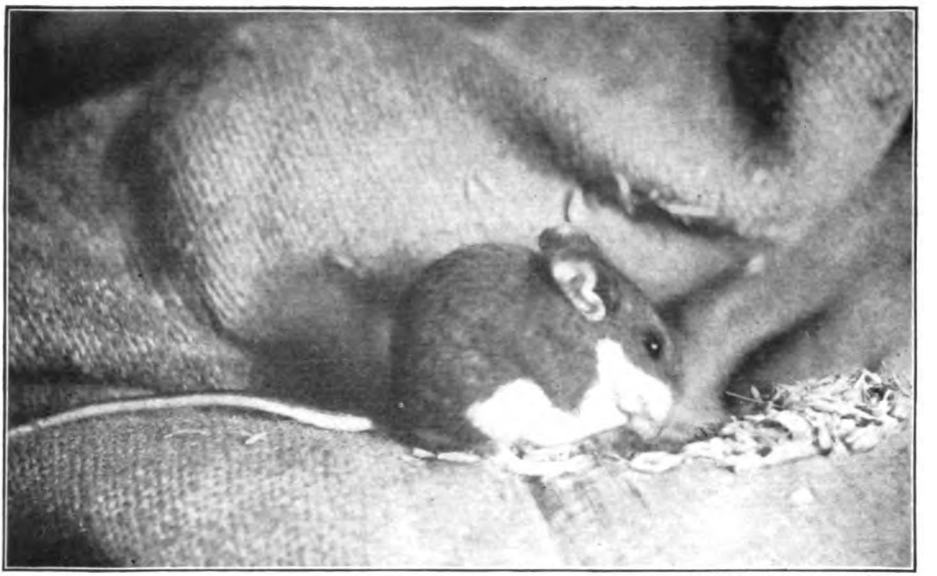
The tide was then high, so we had to pull up the decoys and wait for the ebb. It was growing hot and we stripped to our rowing shirts, and took a nap. We were awaked by the mellow "phew-phew-phew" of a winter yellowleg, and to our disgust found that the tide was already well on the ebb. Decoys were out in a jiffy, and we commenced to whistle for the lonely winter. At last he succumbed to our entreaties and gave me an exquisite chance to miss him with both barrels. I redeemed myself by doubling a pair of beetleheads a moment later.

As it was growing dusk and the flight had nearly ceased, and as a certain gnawing feeling in our stomachs was increasing, we gathered up our bag, and started home.

"I'll bet this is the best bag to-day," said R., when he handed the birds over to me, having carried them half the way. He was right for with the pair of grass birds we got on the way home our 30 big birds were as many as all the other shooters together had taken.

AMATEUR PHOTO BY C. C. SPEIGHT.

PHOEBE BIRD.



AMATEUR PHOTO BY L. D. LINDSLEY.

PROBABLY YOUNG MEXICAN WOOD RAT. *NEOTOMA MEXICANA.*
Made with Premo Camera

AMATEUR PHOTO BY W. R. SMITH.

SCOLDING.
Made with Korona Camera.

BIRDS AT BAILEY'S.

L. S. KEYSER.

Bailey's is one of the many summer resorts in the South Platte canyon, Colorado, and may be reached by a railway journey of 55 miles from Denver. Nestled in an open valley, the village is one of the pleasantest places in the Rocky mountains. I was pleased to find this valley the summer home of many birds, as well as an attractive resort for human pleasure seekers.

In the Rockies you must not expect to find many of the birds common in the East. While following a ravine that led from the village up into the mountains, my ear was greeted by a song that sounded familiar, but that I felt sure must come from the throat of a bird that was new to me. So it proved, for my field glass soon brought into view a gorgeously clad bird, whose back, wings and tail were black; head, scarlet or crimson, the same color running down over the chest in diluted tints; rest of plumage, bright yellow, gleaming almost like amber in the sunshine.

Observers in the East are familiar with a little bird whose suit of scarlet, trimmed with black wings and tail, make him a conspicuous object in the woods; also with another beautiful bird which wears a suit of rosy red or vermilion throughout. These are the scarlet and summer tanagers. You will not find them in Colorado, but in their stead you will make acquaintance with the brilliant bird just described. He is called the Louisiana tanager, and for beauty of plumage has few, if any, rivals in the Rocky mountains.

However, his song, as far as I am able to judge, is just like those of his Eastern kinsmen, a kind of drawling tune that is pleasing enough, but can not be called brilliant. Although I had been rambling several weeks up and down the mountains from the foothills to the crests of some of the highest peaks, I saw my first Louisiana tanagers at Bailey's. At daybreak my half-waking dreams were pleasantly broken by the matins of this bird, proving him an early riser. He is as fond of a pine forest on the mountain side as his Eastern relatives are of a woodland of oak in their own longitude. His mate, who is not so brilliantly clad as her lord, saddles her nest on the horizontal branch of a pine tree, usually some distance out toward the end. Lovers of the mountains, these birds rear their broods between 7,000 and 10,000 feet above sea level, avoiding the plains during the breeding season, although seen there frequently in the periods of migration.

Another interesting bird seen in the hollow above Bailey's was the pygmy nuthatch, which you will not find in the Eastern or Middle States, where you know only the white breasted nuthatch as a resident and the red breasted nuthatch as a migrant. Three or 4 of these pygmies were flitting about among the pines, clambering up and down the branches and boles in true nuthatch fashion, now head upward and now the reverse. They seem shy and nervous little creatures, always moving about among the twigs or glancing from tree to tree, so that they were difficult to watch with the field glass. All their movements were accompanied by a half musical little chirping, which was sometimes prolonged almost into a song when the birds became especially excited over my presence, as they did when I followed them about and ogled them with my glass. As their name signifies, the pygmies are tiny birds, scarcely more than half as large as the white breasted nuthatches, and spend the breeding season exclusively among the mountains, ranging 5,000 to 10,000 feet above sea level.

Among the Rockies you look in vain for the common blue jay, but in its stead you find the long crested jay, so called because of the long, black crest that adorns his shapely head. He is rather a handsome fellow, with his coat of navy blue. He was met with almost everywhere among the mountains from the foothills to timber line, and is especially fond of the steep and bushy acclivities, the pine forests, and the bushy valleys, where he hides his nest in such a manner that, though large, it is extremely difficult to find.

In the ravine, of which mention has been made, there was a family of these birds, the parents feeding their young, which a week before had grown too large to remain in the nest. A great variety of sounds came from the throats of the adult birds. They uttered a harsh, grating call which seemed meant as a warning to the youngsters to be on their guard. When I pursued them, one of the birds, perhaps the male, played a little tune on his trombone, which might be represented as follows: "Ka-ka-ka, k-wuit, k-wuit, k-wuit," the syllable "ka" repeated rapidly, while the "k-wuit" was pronounced more deliberately, with a kind of guttural and gurgling intonation. This song, if song it may be called, bears some resemblance to the common blue jay's liquid outburst. It was succeeded by a grating call that sounded like a file drawn over the edge of sheet-iron. Then the birds chattered in a low,

affectionate way that seemed to indicate they were having a little conference just among themselves.

As I still pursued them, one of the old birds cried "Quick! quick! quick!" as fast as he could fling the syllable from his tongue, the meaning of the outburst being "Hurry away! hurry, hurry!" But that was not all; one of the birds uttered another call, which I translated, "Go ware! go ware!" delivered in so raucous a tone that it might have frightened one who was not used to uncanny sounds in lonely places. Presently the whole company disappeared, not caring for human society any longer, but I could still hear them filing their saws far up in the mountain side.

While there were many birds at the lower end of the ravine where it opened into the valley, their numbers grew less the farther I climbed into the mountains. In all my rambling I found this the case. Comparatively few birds care for the solitudes; at least, their favorite haunts are in the neighborhood of babbling streams, where they can drink and bathe without making too long a journey. Far up the hollows from Bailey's a few Western robins, gray headed juncos and mountain chickadees were seen, and their voices seemed sad in those solitudes, whereas down in the valley their songs sounded rollicksome as they mingled with the roar of the mountain stream.

Other birds seen in this neighborhood were pine siskins, which are the same as the siskins of the East, only they do not go so far North to breed, finding the climate they want in the mountains; Audubon's warblers, almost like the myrtle warblers in Eastern States; mountain bluebirds, whose breasts are blue instead of reddish brown; Say's phœbes, distinctly a Western species; spotted sandpipers, with which Easterners are familiar; Western nighthawks, which zigzag overhead and "boom" now and then, just as their Eastern cousins do; and red shafted flickers, taking the place of the well known golden winged flicker of the East.

The sweetest and best bird of all has been reserved to be mentioned last. It was at Bailey's that my long and wearisome search for the nest of the white crowned sparrow was rewarded. In many a mountain valley, from an altitude of 7,000 feet to the foot of the loftiest peaks far above timber line, I had found the white-crowns, singing their dulcet tunes, and had sought in vain for their nests, probably because it was a little too early in the season.

One evening at Bailey's, as I was walking along the bank of the noisy creek, a male white-crown was singing blithely in the bushes, and I stopped to listen to his vesper hymn. Presently a female scuttled to my side of the stream, chirped uneasily a moment, and then flitted to a bush-clump, into which she slipped. The little lady fluttered away as I peeped into the bush, and there was the pretty nest, containing 4 white eggs dappled with brown, looking like pearls in a tiny casket. All the while the male trilled his liveliest airs to beguile my attention. His mate chirped anxiously, and so I hurried away to set her mind at rest, glad I had found a white-crown's nest, and just as glad to leave it undisturbed.

AMATEUR PHOTO BY J. BAUERS.

SPOTTED SANDPIPER, *ACTITIS MACULARIA.*

Can Any Reader of RECREATION Identify it?

MY FIRST LESSON IN TRAPPING.

KATE E. NORCROSS.

I could not have been over 9 years old when I received my first lesson in trapping. Dave, our hired man, promised to make me a box trap in which I could catch quails and other birds. I was greatly delighted and could think and talk of nothing else until it was completed.

One Saturday afternoon the trap was finished and Dave carried it to a plum thicket 400 yards from the house. There he scraped away the snow and built a pen of fence rails, in which he put the trap. He showed me how to set it and pointed out the little slide door on top through which I was to take the captured birds, one by one. After baiting the trap with corn and scattering more in and about the pen, we returned to the house. The remainder of the day I was too restless to sit down or do anything else but talk to my brother Lish about the trap. Several times we stole cautiously to a knoll that overlooked our treasure, but fortune did not favor us that day.

No sooner were we dressed the next morning than Lish and I hurried again to the knoll. The trap was down! My heart beat painfully as I rushed to it, and yet more painfully when I found it empty. The trigger string had been cut and I could do nothing but hurry to Dave with the woeful story.

He said a hare had been caught and had cut the string in gnawing his way out. He promised to make a dead fall to catch the rascal, and cautioned me to close the quail trap at night. When he had repaired and rebaited the trap I began my second day's watch.

Nothing happened until 3 o'clock, when we found the trap sprung. I flew to it, my brother at my heels, and the sight that met our eyes was soul delighting. The trap was filled with quails. I stepped into the pen, slipped my hand through the slide door and seized a plump, bright-eyed beauty. I had with one hand gathered my big apron into a bag and in that I put the bird. I reached in the pen, caught another quail and was putting it in my apron when the first slipped out and flew away. Lish smiled, but I didn't. As I grabbed a third bird, No. 2 made his escape. The next was fairly in the bag before No. 3 took his departure.

By that time Lish had progressed through smiles, giggles and uproarious laughter to a state of exhaustion that compelled him to cling to the pen for support. I scowled at him savagely while putting the next bird in my apron, only to hear another burst of laughter as No. 4 took flight. Improbable as it sounds, that thing continued until 11 birds had escaped from me and only one remained in the trap. I grabbed the last victim with both hands and started mournfully for the house. As I was climbing the garden fence the top rail broke, letting me fall to the ground and freeing my twelfth captive.

I reached home the most crestfallen creature in the world. Lish giggled while I told the story and my parents strove hard to suppress their emotions. Even beefy faced, shock headed Dave showed no sympathy. "Why, Kate," he said, "why didn't you pull their heads off as fast as you caught them?"

"You didn't tell me to," I protested.

"'Course not," he replied; "I thought anyone had sense enough for that."

THE SWAMP ANGEL

FRANK H. SWEET.

Hark! the hermit thrush is singing,
And his wild, ethereal strain,
Like a silver horn is ringing
Over forest, hill and plain.
"O speral, speral, speral!"
We seem to hear him say,
"O holy, holy, holy!
O clear, O clear away!"

From gloomy swamps and lonely ways,
And woodlands that are wild and dim,
We hear in rising notes of praise
The hermit's tender evening hymn;
"O holy, holy, holy!"
We seem to hear him say,
"O speral, speral, speral!
O clear, O clear away!"

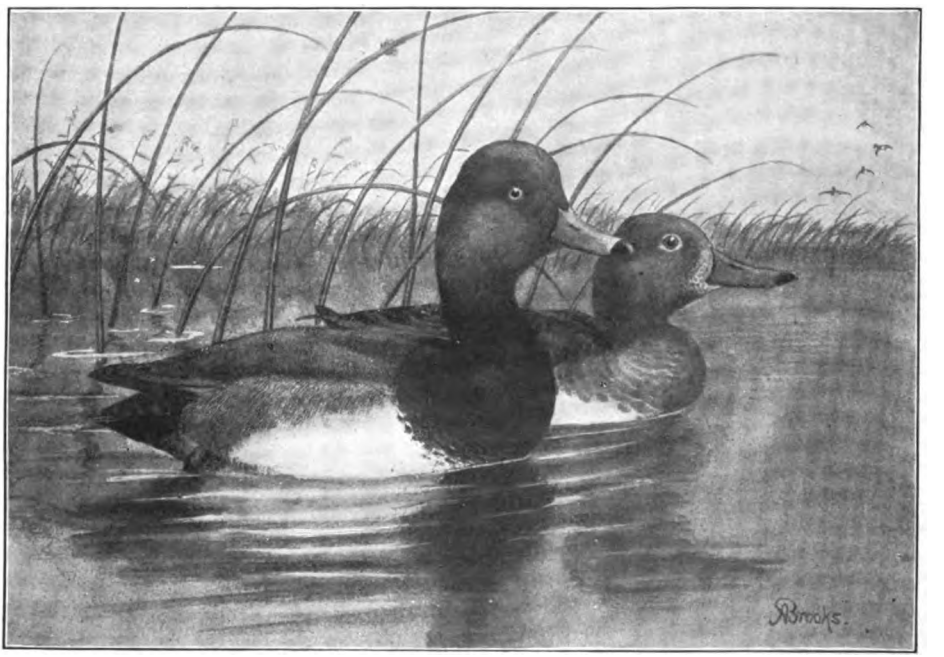
THE RED HEAD.

ALLAN BROOKS.

The redhead has a wide distribution, being found throughout the continent from Atlantic to Pacific. Unlike its congeners, it is not found in the far North, and is one of the few diving ducks that breed commonly as far South as the United States. In the old world it is replaced by a closely allied species, the pochard, which differs from the redhead in the coarser vermiculations of the back and flanks. In America the redhead is often confused with the far-famed canvasback; but this can always be distinguished in both sexes by the long narrow bill, which is entirely black, instead of leaden blue with a black tip, as in the redhead. A much closer ally of the redhead is the ringbill, or ringnecked duck. In form, habits, and coloration of eggs the ringbill and the redhead are identical, and the female of the ringbill is an almost exact miniature of the female redhead. Old male redheads also acquire the white subterminal band across the bill, though this is never so pronounced as in the ringbill.

The redhead is a fine game duck, frequenting marshes in preference to salt water, and is generally a first class table bird, as its food is more exclusively vegetarian than that of most other diving ducks. It is a rapid flyer and an expert diver. A winged redhead will generally make good its escape if there is any cover within reach.

The redhead seems to be a silent duck. During the pairing season it utters a low, grating cry, at the same time shaking and jerking its head about, exactly as if something was stuck in its throat. The ruddy duck has the same action when courting.



THE RED HEAD, *AYTHYA AMERICANA.*

In most localities West of the Rockies the redhead is scarce, and I have never observed in British Columbia the enormous flocks of them that one sees in Eastern America.

In the adult male the iris is deep yellow, in the female more brownish. The feet are dull lead color, with black webs; bill leaden blue, with tip and extreme base black.

A Georgia man, who has gone to Washington in search of a government job, gives as his qualifications: "I can not only write poetry and novels, but there ain't a government mule that can throw me.'—Atlanta Constitution.

PETE MADE HIS MARK.

E. M. LEETE.

About the nicest thing to ride is a hobby, if you don't ride too much. The hobby that suits me best is fishing, from what little I know of it. Of course I should not wish to fish all the time nor make a business of it. Sundays I would willingly give up the sport, and even on Saturday afternoon, if my family needed anything, I should enjoy doing what I could for them.

It has always seemed strange to me that my wife looks at the matter in a different light. She is a sensible woman about almost everything else. I have argued with her by the hour and tried to show her how much the children enjoyed a fish dinner. I have pointed out that fish was a brain food and saved a whole lot on the meat bill; but talk as I would, and I have even worked nights at it, I could not convince that woman. She will insist on my being at the office nearly all the time.

There are times, however, when one has a cold, or a corn, or may be a headache that only fresh air will cure. Now, air is never so fresh as when coming over water, and if you are going to take it that way why not fish at the same time?

One day, as I had a cold or was afraid I should have one, I spoke to my fishing mate, Luther, and suggested that the tide was coming about right for fish the next day, and if he knew where there was any bait we might go. I never like to go alone, and this friend, while not handsome, is useful in a boat. He is a fair angler, mostly catching the small ones that snoop my bait. The big fish I take care of. I did know of his putting one large fish in the boat; that is, I hooked and played it, and Luther lifted it in for me.

We had a common friend, Pete, who worked in a bank. He went down at 8 or 9 in the morning, and sat on a high stool until 3 p.m. I often envied that man his job. If a man must work, it struck me that he couldn't do much less. We feared Pete was getting run down, and was perhaps going into a decline, so we invited him to come with us. He said he hated to leave his business, but he supposed someone must go along to look after us and he would be that one.

For once everything worked to a charm; and 10 o'clock the next day found us at Duck island, with a basket of fish and some bait left. The tide was well up and the fish had nearly stopped biting when we decided to try another ground. There was a rock on the West side of the island, near the shore, called "Junk of Pork," from its shape. It was 8 feet square on top, with vertical sides standing 7 feet out of water. It was a hard rock to land a fish on, and not an easy one to land oneself on; but the fishing near it was good at high tide.

On that rock I landed my 2 friends, with a basket, some bait and a spare snood or 2, while I went just around the other side of the island to Table rock. I anchored the boat, bow and stern, and went to fishing. I fished as hard as I could, for to tell the truth, my companions, while coming from good families, had their faults. Their training had been sadly neglected in some particulars, and if by any chance they should show the most fish when we met, they would be very likely to say unkind things. My boat lay perhaps 5 rods from the shore and between me and the land there were rocks of all sizes, covered with the sharpest of barnacles.

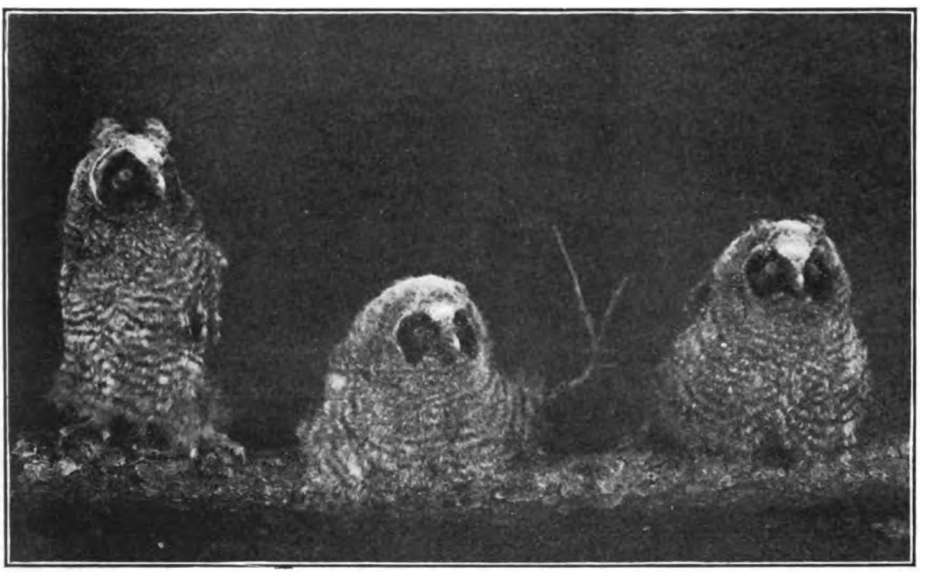
The light wind of early morning had died out, and the hot sun shone on a sea of glass. Schooners bound East had dropped their jibs and anchored, unable to stem the flood tide. The smoke from a tug with a long tow of barges was blackening the clear blue of the sky. Aside from a few gulls playing overhead the sea was asleep, and all was quiet.

I was nearly asleep myself, when happening to glance toward the island, I beheld a strange sight. On that little island, 4 miles off shore, with not a soul on it, as I supposed, I saw a man clothed as was our alleged forefather, Adam, save that I noted a lamentable absence of fig leaves. He did not even wear a smile; in fact, he wore nothing but his skin. I noticed, however, that it was a good fit. As he came nearer I saw red marks on his body, running up and down, with now and then one across. Further inspection showed it was Pete. He was walking carefully, and well he might, for the rocks were covered with barnacles, and barnacles are no better than broken glass to walk on. He limped along by the bushes, down to the water's edge. Then I hailed him. He was not talkative, so I waited and watched. He jumped from one rock to another, now waist deep in the water, now on the surface, and again swimming a few strokes until he gained the boat.

He had been so occupied with his gymnastics that I could not attract his attention; but when he was fairly seated in the boat I felt that I had a right to know what all this was about.

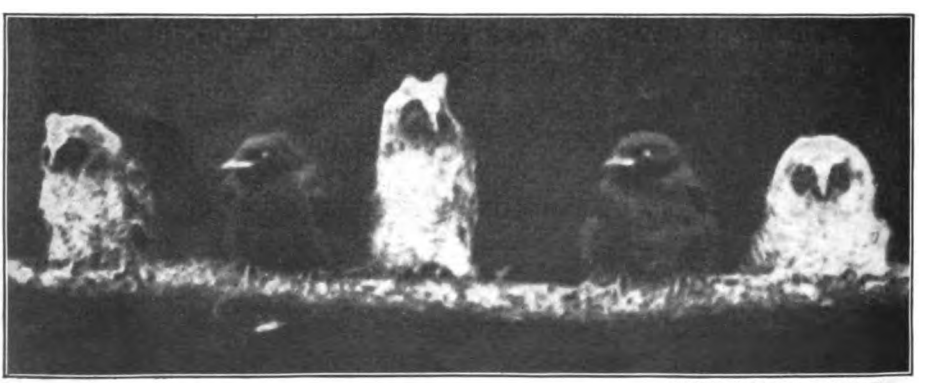
What he said first I will not repeat, but it had condemnatory reference to barnacles.

Later I gathered that he had hooked a fish, just after they had landed, and had lost his hooks, snood and all. They both supposed there were plenty of spare hooks in the basket, but were unable to find any; so, being carried away with piscatorial ardor, Pete stripped and in some way, best known to himself, got into the water from that high rock, gained the shore and came to me for more hooks. He appeared rather mussed up, as he sat with the water dripping from his body and his hair plastered down with the wet. His stomach looked like a weather map of New England after a blizzard. From what I could learn I inferred that the barnacles cut him. It certainly looked that way to an outsider. He asked me if I thought the gashes would heal. I said "Yes"; but he seemed to think he was marked for life. We weighed anchor and went over for Luther and for Pete's clothes, and when the basket was handed down we discovered the missing hooks underneath it. No remarks were made.



AMATEUR PHOTO BY H T. WHITMORE.

THREE OF A KIND.
Made with Korona Camera.



AMATEUR PHOTO BY H. T WHITMORE.

A STUDY IN BLACK AND WHITE.
Made with Korona Camera.

SARANAC LAKE TO CANADA BY WATER.

CHARLES D. FERNALD.

Not having felt well for several weeks, I decided to take a rest, and have a change from the grind of business to nature, for she is so gentle in the spring. Within 4 hours I was abroad the New York Central's Adirondack train, with shot gun, fishing rod and other tackle. I had no idea where I should leave the train, but later decided to go to my old starting place, Saranac Lake. There I secured as guide John Benham, who is the best member of his profession I have ever met. He was the owner of a small Adirondack skiff, 14 feet in length, 28 inches beam, and in that canoe I decided to take a trip.

We started from Saranac Lake at noon Thursday, April 18, bound for Montreal by water. We had to go by the Saranac river to Plattsburgh, then by Lake Champlain and the St. Lawrence the remainder of the distance. Thursday afternoon we made good time for about 20 miles, and stopped at a log house near Union Falls for the night. Friday we had a hard, dangerous day. We left Union Falls about 6.30 a. m., and started for Plattsburgh, which we expected to reach by night.

Above Union Falls we had passed through some bad rapids, but what we found below Union Falls made the others look like still water. We had 7 miles of white water, or white caps. We ran most of the way, but toward the end we had to get out and carry, about 12 miles, in all. The river is so crooked in that country, that it is hard to estimate the distance between 2 places. We came near running over High falls at Russia. We were running along in water that was going like a mill race, with plenty of rocks to make it interesting, when suddenly we saw the river drop. We could not stop ourselves, so we went into the rapids. They were fierce, the river dropping off foot after foot. We ran through them about a mile before we could get near enough to the shore to catch the bank as it went by. After landing, we went below and watched the river tearing and whirling through the big cut in the mountain at Russia, where the drop of the falls is between 160 and 170 feet. Had we gone ⅛ of a mile farther we should have been done for. No boat can live in the falls 60 seconds.

We continued down the river and reached Cadyville that night. There we put up at an apology for a hotel. In the middle of the night I was awakened by someone trying to get into my room. I took my revolver and waited. Soon a man's head and shoulders were thrust through the window. I called out to know what he wanted. As soon as he answered I knew he was under the influence of liquor. He was trying to get to his room, which was next to mine, without anyone's knowing it, and he had taken the wrong window. I was thankful I did not shoot first, and inquire afterward what he wanted.

Saturday morning we started on. The rapids still made it interesting. We reached Plattsburgh that evening, put up at a hotel and took in the town. Sunday morning we started on to Rouse's Point, on Lake Champlain. A stiff breeze was blowing off the lake on to Cumberland Head. It was foolhardy to start, but I did not realize that until we were out in the lake. The water was running high and was capped with white. The little boat behaved nobly, however, and took us safe to shore. The wind died out about 4 o'clock and then we made better time. We arrived at Rouse's Point at 8 o'clock Sunday evening. There I realized I had enough. If we should go farther we would find ourselves running the Lachine rapids in our skiff; so I sent the guide back to Saranac Lake over the Chateaugay road and took a train on to Montreal, which was about 40 miles down the river. After staying in Montreal a day, I took the train back to Saranac and to my surprise learned that Jack had sold our skiff at Rouse's Point after I left. Tuesday evening I returned to New York, with a color like an Indian's and feeling like a new man.

Little Willie—Say, pa, what was Washington's object in crossing the Delaware?

Pa—He probably heard the peach crop was a failure and crossed over to investigate.—Exchange.

SUICIDE?

The photo herewith shows an oriole's nest which I discovered a few days ago in a fallen tree. The dead and dried body of

the builder was suspended from the nest by a horse hair about its neck. The body of the bird is in good condition.

E. B. Heiney, Huntington, Ind.

"I suppose you keep in touch with your nephew while he's away at college," said Dr. Choker to Mr. Munn.

"Well, he keeps touching me, if that's what you mean," replied the uncle.—Detroit Free Press.

RECREATION is, as you claim, the ideal sportsmen's magazine of the country.

E. B. Dennett, Portland, Me.

FARMER BROWN'S EXPERIENCE.

W. A. FULLER.

I'd read into the papers thet
Come every week from town,
How they was made a sort of spoon
Fer lurin' fish aroun'.

I bought one, rigged 'er up, and went
Straight off down to the crick,
And dropped it in real quiet-like,
Right where the fish was thick.

I kinder chuckled as I thought
How s'prised the folks would look
When I brought home the fish I'd ketch
On thet new-fangled hook;

And as I sot and waited with
My back agin a tree,
I thought how some folks never knowed
What great inventions be.

I waited quiet-like and still,
The fish they waited, too;
"What's this?" it seemed as if they said,
"This here is something new!"

So there I sot and fished and fished
From early morn till night,
And when the sun was goin' down,
I hadn't had a bite.

I pulled my line in, wound 'er up,
Looked kinder shy around;
And then I took that fancy hook,
And stomped it on the ground.

I've no more use fer fancy rigs,
Or shiners made of tin,
Fer angle worms 'll ketch more fish
Than spoon baits ever kin.

Have been a reader of your magazine nearly 3 years. Have every issue on file since October, '99, and would not take many times the cost for them. It is the best sportsmen's journal published. The Peters Cartridge Co. and the Marlin people were foolish to withdraw their ads becausc somebody did not like their goods.

L. W. Putoz, Westfield, Mass.

RECREATION is the best sportsmen's magazine published. Am glad to see the subscription list growing so fast.

F. B. Cortright, Mauch Chunk, Pa.

Can't do without RECREATION.

S. D. Bristow, Cherokee, Iowa

THE MOOSE HEAD AT THE PAN-AMERICAN.

I notice in the editorial department of January RECREATION an inquiry regarding a moose head measuring 67 inches, which it is supposed was exhibited by the Ontario government at the Pan-American Exposition.

I do not know certainly that the head was exhibited by the Ontario government, but I had in my hands, for the purpose of mounting, a head, photo of which I herewith enclose you. The antlers had an ex-

treme spread of 67 inches, number of prongs 16 and 17, width of palm 18 and 19 inches, inside beam 42 inches, circumference of burr close to head 14 inches. The horns are a beautiful rich brown color, and symmetrical. The head was large, and in proportion with the horns. The skin was a beautiful dark color, and the whisker, or bell, was intact, measuring 12¼ inches.

This moose was shot on the Demoine river, which is a tributary of the Ottawa river, about 50 miles from Pembroke, by an Indian named Batice Seymo. The head was secured by R. A. McCracken, agent for the E. B. Eddy Company at Big Lake, who brought it to me, for mounting. Mr. McCracken afterward presented it to Mr. W. H. Rowley, secretary-treasurer of he E. B. Eddy Company at Ottawa, Ontario. I understood the head was to go to the American exposition at Buffalo.

I handle a large number of moose heads, and I find in this head a most remarkable thing, which you will notice in the photo; namely, that it attains its greatest measurement 19 inches from the burr forward on the front palm, both sides being well developed.

This head is now in possession of Mr. Rowley at Ottawa. If you, or any reader of RECREATION, may wish any further information I shall be most happy to furnish it.

G. H. Belaire, Pembroke, Ontario

Regarding the moose head at the Pan-American Exposition the statement as to its measurements is correct. It was mounted for the Ontario Government, by Messrs. Oliver Spanner & Co., of this city, and it was on view in their shop window. It is a fine specimen, said to be the largest ever killed in Ontario. It was killed near Powassan, about 20 miles South of the Town of North Bay, on Lake Nippising.

H. F. Overton, Toronto, Canada.

The moose head about which you inquire was killed at Powassan, Ontario. The spread was exactly 66 inches. This head is in the possession of the Provincial Government.

Two heads obtained near Sturgeon Falls, Ontario, about a year ago, measured 56 and 53½ inches respectively. These 3 heads were in our Forestry building at the Pan-American Exposition.

Oliver Spanner & Co., Toronto, Canada.

HOW TO MAKE A CAMP.

Camp life, because of its simplicity, is rapidly coming into vogue. Here are a few simple directions:

Secure a good forest and a fair sized lake in some uninhabited region where game abounds, and clear away a tract of 3 or 4 acres. This can be made into a fine lawn with a few hundred carloads of imported sod. In the centre erect your buildings. The main building need not be more than 3 stories high, and can be built of white marble on the outside and white mahogany on the inside. A good living house like this can be put up for about $20,000. The servants' quarters should be separate. So should the barn. A boat house can be built on the lake, and a wharf not more than a mile long is desirable. After this, all you need is a windmill for pumping water, an electric light plant, 3 or 4 steam launches, an ice house, a bowling alley and a ping pong court. The whole affair need not cost more than $100,000.—Life.

It is a great pleasure to get subscriptions for RECREATION, which is so alive and up-to-date. All I did was to give my friends a back number and they all say RECREATION is the best sportsmen's journal published.

Walter Harris, San Gabriel, Cal.

YOUNG BRISTLEBACKS.

The enclosed photo tells its own story, so just put these 2 porkers with the others and roast them to suit your taste. You see they have their faces turned away. They evidently had in mind what you might do to them. These 2 butchers shot 42 cottontails and boasted that only one got away. They regretted that work prevented further slaughter. We have but little game here and it is an outrage that such hoggishness should be tolerated. These 2 boys, whose names are Billy Schermerhorn and Frank Seecum, kill everything they see. Roast

them brown and show them how they look in the eyes of true sportsmen.

L. A. F., Radnor, Pa.

These boys were wise in turning their backs to the camera. No doubt they look much handsomer that way than they would if their faces could be seen. Any man or boy who will slaughter game to the extent these boys did may well feel ashamed of it. I trust the time may soon come when no one will be willing to stand up and confess such a crime before the world in the way of a photograph.—EDITOR.

RECREATION has done more toward educating game hogs to abandon their shameful practices than anything ever before published.

W. H. Hubbard, Glenwood Springs, Col.

RECREATION is the greatest magazine out. I secured 30 subscriptions in 2 hours from people not at all interested in sport.

W. M. Barrett, East Windsor, N. Y.

RECREATION is the finest magazine published.

S. A. Munson, Indianapolis, Ind.

'TAIN'T TH' SAME.

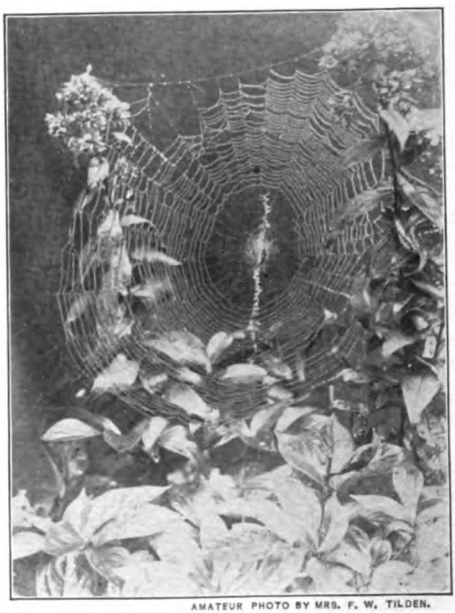
Guess my tackle is th' best—
  Rod o' steel an' fancy flies;
Lines that stand th' toughest test—
  Reels enough for every size;
Yet when I a-fishin' go
  An' recall th' early fame
Of a boy I used to know,
    'Tain't th' same.

Useter own a hickory rod—
  Hook, cork, sinker—nothin' more;
Useter turn th' garden sod
  After worms 'longside th' door.
Useter angle in th' brook—
  Speckle trout aroun' me came,
Seemed to hanker for my hook—
    'Tain't th' same.

There I'd sit an' fish an' fish,
  Starin' at th' quiet pool;
Sit an' watch an' wait, an' wish—
  Quite forgettin' home an' school,
Often caught a lickin', my!
  Dad was quick to place th' blame!
Fishin' cost this youngster high—
    'Tain't th' same.

Fishin', an' inventin' tales—
  Kind o' skatin' round the truth,
Is a sport that never stales
  In th' golden days o' youth.
Got th' tackle that's the best,
  Yet th' sport seems gettin' tame;
What's the tackle 'thout th' zest?
    'Tain't th' same.

—Cleveland Plain Dealer.



AMATEUR PHOTO BY MRS. F. W. TILDEN.

WILL YOU WALK INTO MY PARLOR?

ALASKAN GAME TO BE SAVED.

Another great victory has been achieved. The bill for the protection of game in Alaska has passed both Houses of Congress, has been signed by the President and is now a law. For this, all sportsmen are deeply indebted to that veteran fighter for the birds and the wild animals, the Hon. John F. Lacey, who introduced this bill and has pushed it through both Houses.

The L. A. S. has rendered valuable assistance in this work. A large majority of our members responded promptly to the call sent out to them immediately after Mr. Lacey introduced the Alaskan bill, and thousands of letters from Congressmen and Senators, to League members, have been sent me. In these letters, a majority of the Representatives and Senators pledged their constituents unconditional support of the bill, and they have made good their promises. Following is the full text of the bill:

From and after the passage of this Act the wanton destruction of wild game animals or wild birds, the destruction of nests and eggs of such birds, or the killing of any wild birds other than a game bird, or of a wild game animal, for the purposes of shipment from Alaska is hereby prohibited. The term "game animals" shall include deer, moose, caribou, sheep, mountain goats, bears, sea lions, and walrus. The term "game birds" shall include water fowl, commonly known as ducks, geese, brant and swans; shore birds, commonly known as plover, snipe and curlew, and the several species of grouse and ptarmigan. Nothing in this Act shall affect any law now in force in Alaska relating to the fur seal, sea otter, or any fur-bearing animal other than bears and sea lions, or prevent the killing of any game animal or bird for food or clothing by native Indians or Eskimo or by miners, explorers, or travelers on a journey when in need of food; but the game animals or birds so killed shall not be shipped or sold.

It shall be unlawful for any person in Alaska to kill any wild game animals or wild birds except during the seasons hereinafter provided: Large brown bears, April 15 to June 30, both inclusive; moose, caribou, walrus, and sea lions, September 1 to October 31, both inclusive; deer, sheep, and mountain goats, September 1 to December 15, both inclusive; grouse, ptarmigan, shore birds, and water fowl, September 1 to December 15, both inclusive: Provided, that the Secretary of Agriculture is hereby authorized whenever he shall deem it necessary for the preservation of game animals or birds to make and publish rules and regulations which shall modify the close seasons hereinbefore established, or provide different close seasons for different parts of Alaska, or place further restrictions and limitations on the killing of such animals or birds in any given locality, or to prohibit killing for a period not exceeding 5 years in such locality.

It shall be unlawful for any person at any time to kill any females or yearlings of moose, caribou, deer, or sheep, or for any one person to kill in any one year more than the number specified of each of the following game animals: 2 moose, walrus, or sea lions; 4 caribou, sheep, goats, or large brown bears; 8 deer; or to kill or have in possession in any one day more than 10 grouse or ptarmigan, or 25 shore birds or water fowl.

It shall be unlawful for any person at any time to hunt with hounds, to use a shot gun larger than 10 gauge, or any gun other than that which can be fired from the shoulder, or to use steam launches or any boats other than those propelled by oars or paddles in the pursuit of game animals or birds. The Secretary of Agriculture is authorized to make and publish such further restrictions as he may deem necessary to prevent undue destruction of wild game animals or wild birds.

It shall be unlawful for any person or persons at any time to sell or offer for sale any hides, skins, or heads of any game animals or game birds in Alaska, or to sell, or offer for sale therein, any game animals or game birds, or parts thereof, during the time when the killing of said animals or birds is prohibited: Provided, that it shall be lawful for dealers having in possession any game animals or game birds legally killed during the open season to dispose of the same within 15 days after the close of said season.

It shall be unlawful for any person, firm, or corporation or their officers or agents to deliver to any common carrier, or for the owner, agent, or master of any vessel or for any other person to receive for shipment or have in possession with intent to ship out of Alaska any hides or carcasses of caribou, deer, moose, mountain sheep, or mountain goat, or parts thereof, or any wild birds or parts thereof: Provided, that nothing in this Act shall be construed to prevent the collection of specimens for scientific purposes, the capture or shipment of live animals and birds for exhibition or propagation, or the export from Alaska of specimens and trophies, under such restrictions and limitations as the Secretary of Agriculture may prescribe and publish.

Any person violating any of the provisions of this Act or any of the regulations promulgated by the Secretary of Agriculture shall be deemed guilty of a misdemeanor, and upon conviction thereof shall forfeit to the United States all game or birds in his possession, and all guns, traps, nets, or boats used in killing or capturing said game or birds, and shall be punished for each offense by a fine of not more than $200, or imprisonment not more than 3 months, or by both such fine and imprisonment, in the discretion of the court: Provided, that upon conviction for the second or any subsequent offense there may be imposed in addition a fine of $50 for any violation of sections 1 and 3, and a fine of $100 for a violation of section 2. It is hereby made the duty of all marshals and deputy marshals, collectors or deputy collectors of customs appointed for Alaska, and all officers of revenue cutters to assist in the enforcement of this Act. Any marshal or deputy marshal may arrest without warrant any person found violating any of the provisions of this Act or any of the regulations herein provided, and may seize any game, birds, or hides, and any traps, nets, guns, boats, or other paraphernalia used in the capture of such game or birds and found in the possession of said person; and any collector or deputy collector of customs, or any person authorized in writing by a marshal, shall have the power above provided to arrest persons found violating this Act or said regulations, to seize said property without warrant, and to keep and deliver the same to a marshal or a deputy marshal. It shall be the duty of the Secretary of the Treasury, on request of the Secretary of Agriculture, to aid in carrying out the provisions of this Act. Provided further, that nothing contained in the foregoing sections of this Act shall be construed or held to prohibit or limit the right of the Smithsonian Institution to collect in or ship from the District of Alaska animals or birds for the use of the Zoological Park in Washington, District of Columbia: Provided further, that such heads and hides as may have been taken before the passage of this Act, may be shipped out of Alaska at any time prior to the first day of July, 1902.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman.

CAMP COOKERY.

MRS. A. ATWOOD.

It was a novel experience to make light bread when we were out camping, and it took the greater part of 2 days to accomplish it. About noon I put a cake of dry yeast to soak. When it was thoroughly softened, I poured it into a tin lard bucket, added one cup of water and one of flour, stirred it well, and set it in a warm place to rise.

That sounds easy, doesn't it? But it took all my ingenuity to find the warm place. I put the pail in a large iron kettle, and sat the kettle just near enough to the camp fire to keep it warm, turning it frequently. Both pail and kettle were covered with tin covers.

Besides our camp wagon we had a top buggy, which had a waterproof lid over the rear of the box. At night I added to my bread batter 2 cups of water, enough flour to make it thick, and a small handful of salt. We did not keep our fire burning all night, and on account of the dogs, or possible wild "varmints." I could not leave the dough as in the afternoon. I put it in the back of the buggy box, placed 2 or 3 heated stones beside it, and packed the space under the buggy seat with gunny sacks. In the morning everything was white with frost, and I feared for the success of my bread, but it looked light and bubbly. I worked into it all the flour I could and put it near the fire to keep warm. It was about 3 hours before it was sufficiently light. I kneaded it well, and molded out a pie pan full of small rolls. The Man insists on calling them biscuit. In another hour the rolls were light enough to bake. I baked them as slowly as possible in the Dutch oven. I had, however, too much dough. I could not bake it all before it would sour. I made one loaf, as flat as possible, put it in a pie pan, and had enough for 2 more loaves. I greased 2 small lard pails and put half the bread in each. They were about 1-3 full. I kept one as warm as possible without baking it, and the other as cool as I thought it would keep and continue to rise, so they need not be cooked at the same time. To cook them I put them in the kettle and filled it half full of boiling water. I had to put a stone on top of the pail cover to keep it from tipping over in the water. After an hour's boiling the loaf was done, and our hungry hunters pronounced it fine.

One of our party had a birthday to celebrate while we were out, so we fixed up a big dinner in honor of the occasion. The especial surprise of the feast was apple dumplings. I made ordinary biscuit dough and flattened it out into 4 pieces, each about the size of a breakfast plate. On each piece I put 3 or 4 pieces of apple, pared and cored, and a tablespoonful of sugar. I pinched the edges of the dough together, put the dumplings in a greased pail and boiled them, like the bread, 3 hours.

The hunters had a bottle of vinegar to use in cleaning their guns. On that day I took one tablespoonful of the vinegar, stirred it into one cup of sugar and 2 tablespoonfuls of flour, added one cup of boiling water, let it boil once, and it made a good sauce for our dumplings.

Roast duck: Put 2 small ducks in the Dutch oven, with as many sweet potatoes as you will want. Sprinkle with salt, add one cup of water and a tablespoonful of butter or grease. Bake one hour, keeping the oven at a brisk heat, but avoid burning.

Stuffed squirrel: Only young and tender game should be prepared in this way. Dress them in the usual manner, fill them with bits of moistened bread, well seasoned with pepper, salt and sage, or onions, if they are to be had. Sew them up carefully, place in the frying pan with a little water, steam till tender, then add a spoonful of grease, and brown them nicely. Remove the thread, take the squirrels out of the frying pan, and make a brown gravy. Squirrels are also good when roasted.

Boiled meat with dumplings was one of our favorite dishes, for with coffee it made a complete meal. Use any scraps of venison, or other game, boil till tender in an abundance of water, season well, and throw in the dumplings, made as biscuit dough. Replace the cover, let it boil rapidly 15 minutes, and you have bread, gravy and meat all out of one kettle.

Deviled meat: It sometimes happens that there is a variety of small game brought in at the same time that another hunter brings to camp the first venison or turkey. To utilize this, make some deviled meat. Boil squirrels, quails, ducks and some of the venison all together until thoroughly tender. Let them cool a few minutes, then with 2 forks remove the bones and shred the meat as fine as possible. Put over the fire again, season well, and boil till the mass is almost dry. Pack it in empty tin cans and place a weight on each. It will prove delicious some day when the cook joins the hunters, and everyone comes home

to camp tired and hungry, or when on the move and there is little opportunity for cooking.

We are not Southern folks, and did not take kindly to biscuit and hoecake, so for variety we sometimes made Boston brown bread, as follows: One pint of water, ½ cup of sorghum, 1-3 cup of grease, one teaspoonful of soda, one cup of flour and one pint of corn meal. Pour into a greased pail, put the pail in a kettle of boiling water and boil 2 hours. Open the pail and put it near the fire a few moments to dry. May you enjoy camping as much as I did!

A MISLEADING CIRCULAR.

Roselle, N. J.

Editor RECREATION:

In spite of the Lacey act, in spite of the L. A. S., the illegal depletion of our game covers continues, and we must still fight before we can hope to have good laws properly enforced.

A few quotations from a circular will show how the market hunters are infringing on the rights of every sportsman. In the section given to Pennsylvania it says: "Ruffed grouse have been plentiful for several years in Venango county, but market hunting has depleted their number. During '96 at least 2,000 were shot in this county, where one pot hunter captured about 700. The same may be said of Tioga county. It is reported that market hunters sent to New York during '95 over $5,000 worth of grouse. Westmoreland county yielded about $1,000 worth of game in '96, consisting of wild turkey, grouse, quails, rabbits and squirrels. Five merchants in Wilkesbarre, from October, '95, to January, '97, sold 3,500 grouse. One Luzerne county hunter is reported to have killed in '96, within a radius of 30 miles of Wilkesbarre, 804 grouse; in '95 this same individual marketed about 1,200 grouse. York county formerly contained a great deal of game. A few years ago fully $8,000 worth was annually shipped from this county, but market shooting has greatly reduced the supply. From 5 townships in York county there were sent to market in one year 1,800 quails, 2,800 rabbits, and 3,000 wild ducks. In 1896 a firm in Susquehanna county bought 3,000 grouse, 1,500 quails, 30,000 squirrels, and 40,000 rabbits."

This work is still going on, for although it is unlawful to ship game out of nearly all States, it is still permissible to sell game within State limits. A grouse killed in Pennsylvania looks exactly the same as one killed in New York, and after the game illegally shipped is unpacked, who can detect the crime? As long as the sale of game is permitted anywhere, just so long will men shoot game for the market. Three Western States have abolished the game market, and have, under the guidance of the L. A. S., nobly commenced the final struggle for the preservation of our game. Let New York be "not the last to lay the old aside"; let all States unite in this grand cause, and the battle will be won. This should be every sportsman's first endeavor. Spring shooting and every other kind of vandalism is not so destructive as the game market.

As a result of spring protection to game more birds are staying every year in Vermont to breed than formerly, and undoubtedly when pickerel shooting is made unlawful many more will stay; as the constant banging of the pickerel shooter every spring must drive many ducks away.

Even in New Jersey, where spring shooting is still permitted, I know of 2 ducks' nests within 2 miles of Rahway. One is a wood duck's; the other, a black duck's. If the open season ended January 1, thousands of ducks and marsh birds that ordinarily go far into Canada would stay with us. The Canadian Indian, who smokes and salts down thousands of ducks for his food supply in winter, would wonder why the yearly flight across the line was growing less, and we should rejoice that our game birds were no longer driven to the far North. C. D. H.

The statement you quote from the circular is no doubt grossly exaggerated. For instance, it is stated that in one year 3,000 ducks were shipped from 5 townships in York county, Pa. That is not a duck country in any sense. A few ducks may be found each year along the Susquehanna river, but I doubt if even 200 were ever killed and shipped from that county in one year.

The statement that a firm in Susquehanna county bought and shipped 30,000 squirrels in one year is simply absurd. I doubt if that many squirrels have been killed in that county in the past 10 years.

A number of men have been prosecuted for violations of game laws in Susquehanna and York counties within the past 5 years, and but little illegal shooting or selling of game is done in that county now.—EDITOR.

HOW MR. SHARP CONSTRUES THE LAW.

Hon. John Sharp, Salt Lake, Utah:

I have several times been informed by citizens of your State that you have made ruling to the effect that a so-called sportsman may take with him in his boat a guide or pusher on the duck grounds; that the sportsman may, if he choose, forbid the guide doing any shooting, and that he, the

sportsman, may kill 80 ducks in a day. That when the 2 men come in from the shooting grounds with guns and with 80 ducks in their boat, you do not deem it proper to ascertain or have your deputies ascertain, whether each of the men killed 40 of these birds or whether the employer killed all of them. I beg to inquire whether this report is correct.

It is alleged by several earnest friends of game protection in your State that non-residents who go to Utah to shoot ducks make a practice of employing guides, of allowing them to carry their guns with them on the boat, and then of doing all the shooting, forbidding the guides to use their guns at all. One man in Colorado writes me direct that he took 4 men with him in a boat one day, and that as he did not allow them to do any shooting he killed 200 birds himself. I do not credit this story, but should like to know how you construe the law which limits each man to 40 ducks.

G. O. Shields.

Salt Lake, Utah.

Mr. G. O. Shields, New York:

Reports similar to those you mention have reached me, and I have no doubt they are true to a considerable extent; but as last season was the first in which we have had a limit law, I did not construe it one way or the other, thinking that true sportsmen would not try to evade the clear meaning of the law the first season. It seems, however, there are few true sportsmen to be found in an out-of-the-way place like Duckville, Utah. I construe the law just as it reads, and shall hereafter enforce it to the best of my ability. It will be difficult to enforce, as there is nothing in the law to prevent a boatman, or pusher, from taking his gun with him, unless the gun club makes a rule to that effect, and if the would-be sportsman allows his guide, or pusher, take his gun along, it will be difficult to say whether both or one does the shooting. They might be put under oath when they come in at night, but I have observed that men who are perfectly honest and upright in everything else will unhesitatingly steal and lie about fish and game. In the future this limit law will be enforced as far as possible, and each man, whether he be resident or non-resident, will be confined to his 40 bird limit. If it can be proven that any man takes the liberty of shooting the score of his guide, or pusher, the employer will be prosecuted. I can hardly believe the story of your 4-ply Colorado hog, but it is possible, and the deed might have been done without my hearing of it. With all the reported evasions and violations for the first season of the bag limit, I am pleased to say that the barbarous slaughter was reduced about 300 per cent over former seasons, and I trust we shall be able to lessen it still more hereafter.

John Sharp, Commissioner.

NOT SO BLACK AS PAINTED.

The State of Durango has many American residents. One of the most prominent is Dr. L. H. Barry. Dr. Barry, who is a most enthusiastic sportsman, has sent to friends here a number of photographs which show with what success his last expedition into the Sierra Madre country was crowned. The doctor and his family spent 8 days in camp, during which time the doctor alone shot 19 deer, in addition to a great number of turkeys, grouse, and other fowl. This camp was pitched in the heart of the mountains, 85 miles from Durango, and was reached with a pack train of 12 Mexican burros. Included in the journey were the passage of a barren plateau and a stiff mountain climb.—Exchange.

Regarding the statements contained in above clipping, Dr. Barry writes as follows:

In reply to your letter would say that your information is far from correct. We did kill 19 deer, but only 3 turkeys. Grouse are unknown in Mexico. There were 14 in the party, and we were out 3 weeks. Twelve of the deer we ate, and sent the others to friends in town who kindly equipped us with horses, tents, etc. We could have killed 100 deer if we had cared to. It is common to see 30 or 40 deer a day in that country, which is 3 days' travel from here.

I should like to take issue with some of the old-timers as to the sense of smell in deer. I wear moose hide moccasins and have walked up within 30 feet of deer lying down. They paid no attention until they saw me. Have had deer pass within 20 feet of me. Of course that was when I was standing perfectly still; the slightest movement would send them flying. If their sense of smell is so keen, how do you account for my getting so near them?

I have found them feeding at all hours. I have found them lying down at all hours. After 6 years' hunting here I know practically nothing of their habits. My early ideas as to habits of deer have been exploded. I believe they have the most acute ears of any animal extant. When lying down the ears are working back and forth all the time. Deer can see a leaf move 40 rods away. I believe they depend almost entirely on hearing and sight for the detection of an enemy. In getting away they will jump anything. I saw 2 go over a bank 40 feet high, and keep on going.

C. H. Barry, M. D., Durango, Mex.

GAME COMMISSION PROTECTS LAW BREAKERS.

If W. B. W., of Schuylerville, N. Y., will furnish the correspondence he refers to as having passed between him and the Game Commission I will take charge of

an investigation that will unearth the "nigger in the woodpile," and we can then rest assured there will be less politics than there now is in the Commission. I am working up a case against one of the wardens, and as I have had some experience in breaking up such rings I hope to succeed with this one. I have been through a section of the Adirondacks where still-hunting can not be carried on without snow, yet we read in every county paper of deer having been shot at this or that lake, or pond, and by women, too. We are expected to believe it was done legally. I have written the Commission one letter, and I am collecting evidence against a notorious lot of violators who se to be protected by the warden, for it is well known that they hunt openly, and wherever they wish to hunt; that they buy, sell and trade, and that they exchange dogs with other parties who think immunity lies in not using the same dogs all the time. The breeding of fine deer dogs is as much of an industry as ever, and prices are as high as before protection was instituted. The protection given the deer is like the protection afforded the public of New York city by the police, and a searching investigation would furnish some startling facts. The parties who hunt at Underwood, New pond, Clear pond, the Boreas waters, and Newcomb, are doing it illegally. The entire Southern section of the Adirondacks lacks efficiency in its force of wardens, and the practice of conducting a still-hunt when investigating a violation of the law is wrong in principle and effect. The public knows nothing of the results, and it is believed by many of the law-abiding residents of the region that few convictions are ever obtained. If any are, the fines are not divulged publicly, but you are led to believe that Mr. "A." had to pay a big fine! It is such privacy that has led the people to believe the Commission is not doing its duty unless forced to do it, and then only reluctantly.

Adirondack, North Granville, N. Y.

A SHAMEFUL SLAUGHTER.

BERKELEY.—The coating of oil on the waters of the bay which last week caused many ducks to fall into the hands of Alameda hunters in the vicinity of Bay Farm island, has drifted Northward to the West Berkeley shore. Numbers of ducks that have become entangled in the viscid fluid are being slaughtered by Berkeley boys. Carlisle Coey, Joseph Rose, William Connolly and P. Carcot killed 64 ducks with stones and clubs in one day near Sheep island.—San Francisco Chronicle.

When the above clipping was sent me I wrote the persons mentioned, asking for their version of the affair. One of them answered as follows:

I do not know the cause of it, but the waters of San Francisco bay are often covered with tar oil. Ducks while feeding become covered with the oil, and go to the beach to rid themselves of it. On the occasion mentioned Wm. Conley, Jas. Rose and I were fishing near Sheep island. Landing there, we found a number of ducks on the shore, picking and cleaning themselves. They were so dirty we could not tell what they were until we killed 2 with clubs. When we found they were canvasbacks we went around the island, killing as many as we could with sticks and stones. None of the birds could fly, but many took to the water and escaped in that way. We got 64.

Carlisle Coey, Berkeley, Cal.

It is a great pity that some able bodied, fearless man did not happen along at that time to give you boys what you deserved. You should first have had a few good birch rods worn out on you. Then you should have been undressed, painted with a thick coat of tar oil with a heavy top-dressing of feathers from the ducks you slaughtered rubbed into it; after which you should have been marched home through the principal streets of your town with placards on your backs, printed in large type, "Game Hogs." If you could have had such a visitation of justice as this and such an exposure to public gaze, you might possibly have realized the enormity of your offense. —EDITOR.

A REVEREND GAME HOG.

Enclosed is a clipping taken from our daily paper. This is what I call slaughter of the worst kind and each man should be fined $50 or a year in jail.

B. B. F., Decatur, Ill.

Six hundred and ninety-two rabbits and 270 quails were the result of one day's hunting around Lovington. The game will be served at a big supper for the benefit of the Christian Church, of which Rev. F. C. Overbaugh is the pastor. It is not expected that all this game will be eaten, but the rabbits that are left over will be sold and the quails will be given away, it being against the law to sell them now.

The final arrangements for the contest were completed Monday. A. Hoots was selected captain of one side and William Heffler the other. These captains selected 20 men, and they started in opposite directions.

When the hunters returned to town the people were astonished at the success of their undertaking. The record follows:

Heffler Party—	
Rabbits	363
Quails	132
Hoots Party—	
Rabbits	329
Quails	138
Total	962

The Heffler party was victorious by a narrow margin of 16 points. It was the greatest hunt ever known in this section of the State.—Decatur (Ill.) Herald.

There is some excuse for ignorant, half civilized men like some of those in the rural districts who engage in side hunts, but what shall we say of a minister of the gospel who engineers one of these butchering contests? Rev. Overbaugh has disgraced his calling and has befouled his cloth with the filth of the worst type of game hog known to the world, the side hunter.—EDITOR.

KILLED SPARROWS BY THE TON.

Pana, Ill., Jan. 1.—The annual sparrow hunt of Pleasant township has ended, and as a result 3 tons of sparrows were killed. The hunt was indulged in by 2 parties of farmers. Twenty men on each side engaged in the pursuit, the stake being a banquet to be given by the party securing the fewest birds. The victorious party brought in 13,000 birds, while the losers bagged 11,000, a total of 24,000 sparrows. The birds averaged 4 ounces each. The hunt was in progress one week.

Such a side hunt ought to be productive of good results. The English sparrow is a filthy nuisance, and if he serves any useful end I have never discovered it, unless it be that he may be converted into food. I once cooped about 30 in a poultry house, where I fed them grain for 2 weeks. They were then killed, skinned and made into a pie. I have eaten many things much worse than that pie. The English sparrow besides destroying gardens and industriously filling up the eaves troughs, drives away nearly all other birds. It is perhaps impossible to exterminate them, but by carrying on a vigorous warfare they may be kept within bounds. F. C. Koons, Des Moines, Ia.

I am opposed to side hunts in general, but this kind is different, and I should be glad if such sparrow killing matches could be held everywhere. There is no close season on these birds, and every man who kills one of them contributes liberally to the welfare of the song and insectivorous birds. Why can not fellows who are so fond of slaughtering quails and ducks and prairie chickens satisfy a lot of their thirst for blood by shooting sparrows? Let us have more sparrow side hunts, by all means.—EDITOR.

A VOICE FROM THE WILDERNESS.

This nation is rapidly gaining wealth and greatness, and power on land and ocean. This is the time to establish a national game preserve in Southern Alaska, on the lines laid down by Mr. W. T. Hornaday in RECREATION. It can be done if Congress so wills it, backed by an enlightened people. It is not a party measure; but all the descendants of this nation will be heirs to Nature's living creatures. There is a great army of little folk around us developing brain and brawn, who will be here when we are gone. We should work for the children of the future.

Should the forests be swept from the earth, the birds all exterminated; should there be no joyous bird songs to awaken the slumbers of a newborn day, no tracks of game on the pathless and dreary plain, life would not be worth living.

"Well might the sun in darkness hide,
And shut his glories in."

Nature has labored for untold ages to bring forth all these glorious genera.

England has set us a good example in building wagon roads, and in preservation of forests and game. Their mounted police in British Columbia are thorough and efficient, and are doing clean work.

In many lines the average man has not advanced in intelligence since the ages when his weapons were the fire-hardened club, his skinning knife of jasper, and his ax of bronze or stone. Here in Idaho such men tell us they don't care how many laws are made to protect game and fish, they will kill all they can!

A. C. G. Slocum, Rathdrum, Idaho.

SOME OHIO HOGS.

Tiffin, Ohio.

The largest and most remarkable catch of the present game season was made yesterday by Al. W. Franklin, of the Standard Oil Company, and C. H. Bradley, secretary of the State Investment Company, both Cleveland men. They were accompanied by the Geyer Bros., landlords of the Empire hotel, of this city. In less than 8 hours they bagged 175 quails and 9 rabbits.—Toledo (O.) Blade.

I wrote these fellows, and append answers from 2.

It is true that 3 of us bagged 175 quails in 8 hours, each man shooting over his own dog. A few days later my brother and I killed 105 quails in 8 hours hunting.

Charles Geyer, Tiffin, O.

You were correctly informed as to the number of quails secured in the mentioned time. My comrades were Messrs. A. W. Franklin of Cleveland, and Chas. and Sam Geyer of Tiffin, Ohio. By the way, these men are veteran sportsmen and admirers of literature pertaining to same.

C. H. Bradley, Cleveland, O.

Bradley says "these men are veteran sportsmen and admirers of literature pertaining to same." He is entirely mistaken. They have no more sense of true sport than a cow has of music. They are simply low-down, uneducated butchers, and no true sportsman would be found in their company, with gun and dog. It is safe to say that RECREATION will not hereafter figure in the list of literature that they admire.—EDITOR.

THE MUSIC OF THE CHASE.

In January RECREATION I saw an article on coon hunting, by O. M. Arnold, which interested me exceedingly.

Mr. Arnold says he never fancied hounds for this sport, as he found them too apt to run the back track. He also says, their power of discrimination is not good. I have had considerable experience with hounds in coon hunting and have found them satisfactory in every way. I do not believe a really good hound will run a back trail far. I have a pair of well bred foxhounds which are used exclusively for this sport, and their power of discrimination is wonderful.

The reason a coon in front of a hound, be the dog fast or slow, invariably takes a large tree is easily explained. The hound, as we all know, gives tongue freely. The coon hearing this, is enabled to keep his pursuer located; and with that advantage, can usually select his route and judge his distance well. With a collie it is an entirely different matter. He follows the trail silently and does not yelp until he sights the coon. Thus the game is often taken unaware and makes for the nearest tree, be it large or small. One might possibly bag more game with a collie, but to us who love the music of the chase, give the hounds.

Marcus A. Ide, Catonsville, Md.

THE CANVASBACK KING.

A subscriber having called my attention to the doings of Tilman Lewark, called by a local paper "the canvasback king of Corolla, N. C.," I wrote that person asking if it was true that he had killed 300 ducks in a day, as reported. He replied as follows:

There is some mistake in the number of ducks I am reported to have killed; but I have made some big bags in a short time. Once I killed 101 ducks with 117 shells, which were all I had with me. Another time I shot 140 ducks in a few hours. Shooting has been fine on Currituck sound this season. If there is other information I can furnished you, I shall be pleased to do so.

Tilman Lewark, Corolla, N. C.

It is not necessary that you should furnish me any further information. Your present letter convicts you of being a disreputable butcher, and it is because you and a lot of other swine have been permitted to carry on this kind of slaughter along the North Carolina coast for years past that the ducks and geese of the whole Eastern country are now nearing total extermination. I hope your Legislature will soon enact a law that will put such brutes as you in jail and limit the number of ducks any decent man may kill in a day to 25 at the outside.—EDITOR.

TWO MORE FROM NEW JERSEY.

W. E. Horner, Jr., a game dealer, and Hansel Parker, both residents of Parkertown, N. J., said to be the best wing shots of that vicinity, recently killed 84 yellowleg plover in one day's shooting. Old-time hunters believe this is the high record for 2 men in one day's hunt.—Exchange.

To my inquiries as to the truth of above report I received the following replies:

It is true we killed 84 large yellowleg plover in one day. If you care to insert it we will get up a nice piece about it for you to publish in your paper, and we will buy a number of copies.

W. E. Horner, Jr., Parkertown, N. J.

Yes, we 2 killed 113; 84 plovers and 29 small birds. Please send me one of your papers.

Hansel Parker, Parkertown, N. J.

Thus you announce yourselves members of the great army of American game hogs. No decent man would have killed more than 15 of these birds in a day no matter how many he might have the chance to kill, and inasmuch as you have exceeded that number you have proclaimed your swinish proclivities. If after reading this you want a dozen copies of RECREATION to distribute among your friends I will gladly send them to you free of charge. Never mind the "piece."—EDITOR.

PENNSYLVANIA INTERESTED.

Though I have read RECREATION but a short time, I realize that I can not afford to be without it. Your magazine is the best sportsmen's journal published, and I have read them all. I congratulate you on your good work for the protection of game, and note with ever increasing pleasure the interest manifested in your labors. Owing to mild and open winters, together with the growing disposition to enforce the game laws, I am pleased to be able to report a noticeable increase in the number of our game birds. The woodcock, however, is gradually disappearing from the swamps where once good bags might be secured. This condition is probably the result of the pernicious law permitting the killing of the birds in July. The Lycoming Sportsmen's Association of this county, organized less than a year ago, has already secured the arrest and conviction of several persons charged with having deer in their possession over and beyond the 15 days allowed by law, the fines amounting to $100 and costs, each, for the 4 or 5 individuals concerned. We are further assured that something will be doing in this vicinity next fall.

Ermin F. Hill, Hughesville, Pa.

A MARKET HUNTER WATCHED.

In January RECREATION I saw a letter written from Lakefield, Minn., by R. C. Darr. From its tone one might suppose Darr a genuine sportsman, but he is the worst game hog I ever ran across. He became a citizen of Minnesota to escape having to pay for a hunting license, and for several years slaughtered game birds for market. When the law prohibiting export of game went into effect I heard him say, "What is the use of hunting now, when you can't get rid of the game?" Nevertheless, he continued hunting as before, shot lots of chickens, ducks, etc., and disposed of them in some mysterious way. A warrant was issued for his arrest for shipping game, but nothing came of it. Since then he has been closely watched. Abundant proof of these facts can be had.

H. R. Heath, Aberdeen, S. Dak.

Minnesota and all other States should enact laws prohibiting the sale of game at any time, even when killed within their limits. Several of them have already done this, and whenever the remaining States follow suit then the occupation of the market hunter will be gone, and the sooner the better.—EDITOR.

THOROUGHLY NATURALIZED.

When William Waldorf Astor was said to have bought Battle Abbey the English papers cruelly lacerated our feelings by calling him an American. Although the charge was totally unfounded, the humiliation of it cut deep.

But the most malicious Yankee hater on Fleet street will hardly venture to load us with Mr. Bradley Martin. Mr. Bradley Martin has been having that peculiarly British form of recreation known as a "shoot." We are informed that it was a huge success.

"The sport was excellent. In 5 days' shooting 5,504 head of game were slain, the best day yielding 1,236 pheasants and more than 1,000 rabbits."

In Chicago, visitors are taken to the stock yards to see how fast experts can slaughter hogs, but that is not called sport; it is business.

In California the farmers of a whole county sometimes have a rabbit drive, in which 20,000 jack rabbits are herded into an inclosure and killed with clubs, but that is business, too, and, besides, the jack rabbits are wild.

Anybody who turns his place into an abattoir, inviting his guests to perform the work of the hired butchers in the Chicago stock yards on 5,000 tame pheasants and rabbits is forever protected against the charge that he is an American.—Chicago American.

Even a yellow journalist like Mr. Hearst shudders when he reads an account of the principles of some of our American game hogs.—EDITOR.

PAID HIGH FOR VENISON.

Dr. Charles Bastian and Zack Clark, well-known hunters of Salladasburg, were arrested this morning, and pleaded guilty to killing deer out of season. For their illegal act Alderman Kellenbach fined them $200 and costs, which in all amounted to $232.60.—Williamsport (Pa.) Sun.

The Lycoming Sportsmen's Association is only 9 months old, but already we have secured 2 convictions for violation of game laws. The first case cost the culprit $70 for 2 rabbits killed out of season. The second case is the one mentioned in the clipping. We mean business and poachers in Lycoming county are now up against the "real thing."

W. W. Ahmbosh, Williamsport, Pa.

Another case in which venison proves high living. Dr. Bastian and Mr. Clark could have bought beef enough for $232.60 to last both of their families a whole year. They will probably be perfectly satisfied with good domestic meat in future.—EDITOR.

TOO MANY QUAILS.

Offerman, Ga.—J. C. Brewer, of Waycross, J. H. Bynum, of Offerman, and H. G. Williams, of Liberty City, went shooting here to-day and returne dwith 286 quails. They had Mr. Brewer's 2 dogs from Waycross.—Savannah (Ga.) News.

To my inquiry regarding the truth of above report the following reply was made:

There was an error made by the reporter in stating that 2 friends and I killed 286 quails in one day. We bagged 106. Of course we killed a good many that were left on the ground. We expect to take another hunt soon, and I will advise you of results, if desired.

J. H. Bynum, Offerman, Ga.

That was twice as many as you should have killed. If you had been reading up-to-date sportsmen's literature the past few years you would have known that all gentlemen who shoot quails quit, nowadays, when they get 10 to 15.—EDITOR.

DOVE KILLING IN GEORGIA.

There was a lively contest at shooting doves by Moultrie sports Wednesday morning. Two parties went out to different plantations and strove for the largest number of birds. One party went down to Mr. George Suber's plantation, near Suberdale. They were joined in their shoot by Mr. Suber and other local sportsmen. They found doves in sufficiently large numbers to begin with, but after 2 hours' shooting the birds left the fields. The men killed between 350 and 400. Another party went down to Murphy and engaged in a big shoot on the Murphy plantations. The shooting was lively here, also, but lasted only a short while. This party bagged about 300. The sportsmen claimed it was not a good day for shooting doves.—Moultrie (Ga.) Observer.

The editor of the *Observer* should learn to call things by their right names. When he applies the term sportsmen to such contemptible game hogs as these, he insults every real sportsman in the country. This editor should read RECREATION and learn something of modern English before he undertakes to report another side hunt.

GAME NOTES:

The county of Digby, Western Nova Scotia, is not exactly a poachers' paradise. Major John Daley and Edmund Jenner, agents for the Game Society of Nova Scotia, have been after the poaching fraternity. January 9th, a fine moose carcass was seized, condemned as contraband, and sent to the county poorhouse. January 22d, Agent Daley received word that Abram Ivney, an Indian, was on his way to Digby with moose meat illicitly killed. While Major Daley was overhauling the freight consigned to St. John, N. B., Agent Jenner took a look around the town, and discovered Ivney with a bag of fresh moose meat. The magistrate considered that 30 days in jail would be about the correct thing and Abram is now enjoying it. January 25th a hotel keeper was fined for having bought moose meat in close season.

E. Jenner, Digby, N. S.

Quails, grouse, ducks and deer are much more plentiful here than they were 3 years ago, showing the good result of stringent game laws. There can, however, occasionally be found an editor, too indolent or too poor a shot to bag any game for himself, who bewails the absence of an opportunity to laud pot hunters. To that sort of editor the game laws of Wisconsin seem a farce and a scheme of the city-bred fellow and the rich to corner the hunting and fishing. No one who ever carried a rod or a gun with any regard for the future supply of game takes any stock in this editor's wrong theories, and the good work goes on. Sportsmen see more and more the need of laws for game protection, and will continue to work for their further enactment.

T. W. Borum, Barron, Wis.

What kind of game can be found in the vicinity of Jennings, Calcasieu county, Louisiana? R. M. K., Chicago, Ill.

ANSWER.

Along the coast of the Gulf of Mexico, from New Orleans to Galveston, Texas, quails and gray squirrels can be found. Between New Orleans and Orange, Texas, can be found snipe and all kinds of ducks, more especially between La Fayette and Orange, where the rice fields offer them rich food throughout the year. Between New Orleans and the Texas line are vast swamps, or marshes, where many black bear and deer are hunted and killed every season. Fish and oysters of all kinds are plentiful in that territory.—EDITOR.

In your battle with the fish and game hogs do not get discouraged. You are putting up a fight in which you have the best element of the nation with you, and one which will leave your name in honor long after you and I are gone. Coarse, selfish men have to be roughly dealt with. Hercules had to club down the heads of the hydra and then have his servant sear them with a hot iron to keep them from sprouting again. This kind will not sprout; they will hide, and another generation will not know them. The lowest class of men I have ever met are those who shoot for the market. Boone, Lewiston, N. Y.

In printing one of my letters in May RECREATION you credit me with saying that meadow larks are "larger and more difficult of approach late in the season than any of our game birds." This is an error. The word "many" should take the place of the word "any." Kindly correct this or I shall have to undergo a medical examination as to my sanity.

A. L. Owen, Keating Summit, Pa.

Squirrels, rabbits and quails are plentiful here. A few pheasants have been turned loose in our part of the country, but their increase has been retarded by the hard winters we have had the past 3 years.

G. L. Linkhart, Pt. Williams, O.

My home is in a good country for hunting and fishing. Our duck shooting is especially good. Should like to learn where I can find good prairie chicken shooting.

C. M. Palmer, Madison, Wis.

Red foxes are abundant in this vicinity. More than 20 were shot in Jefferson township during the first 2 months of the season. E. O. Wickersham, Zanesfield, O.

We had plenty of small game last season. Quails were more abundant than for years before.

J. N. Dodd, County Line, Ia.

Quails wintered well and are abundant. We shall certainly have fine sport here this fall.

H. J. Duke, Shippensburg, Pa.

Two men went about 15 miles East of here and shot 63 rabbits and 88 quails in one day. C. G. Fisher, Piqua, O.

Quails got through the winter nicely; if nothing happens, they will be thick next fall. J. H. Crist, Covina, Cal.

Quails were unusually plentiful last fall for this place, and wintered well.

J. Dickson, Durham, N. H.

ALMANAC FOR SALT WATER FISHERMEN.

The following will be found accurate and valuable for the vicinity of New York City:

Kingfish—Barb, Sea-Mink, Whiting. June to September. Haunts: The surf and deep channels of strong tide streams. Baits: Blood worms, shedder crabs and beach crustaceans. Time and tide: Flood, early morning.

Plaice—Fluke, Turbot, Flounder. May 15 to November 30. Haunts: The surf, mouth of tidal streams. Baits: Shedder crabs, killi-fish, sand laut. Time and tide: Ebb, daytime exclusively.

Spanish mackerel—Haunts: The open sea, July to September. Baits: Menhaden, trolling—metal and cedar squids.

Striped Bass—Rock Fish, Green Head. April to November. Haunts: The surf, bays, estuaries and tidal streams. Baits: Blood worms, shedder crabs, Calico crabs, small eels, menhaden. Time and tide. Night, half flood to flood, to half ebb.

The Drums, Red and Black. June to November. Haunts: The surf and mouths of large bays. Bait: Skinner crab. Time and tide: Day, flood.

Blackfish—Tautog, April to November. Haunts: Surf, vicinity of piling and old wrecks in bays. Baits: Sand worm, blood worm, shedder crabs, clams. Time and tide: Daytime, flood.

Lafayette—Spot, Goody, Cape May Goody. August to October. Haunts: Channels of tidal streams. Baits: Shedder crabs, sand worms, clams. Time and Tide: Day and night flood.

Croker—July to October. Haunts: Deep channels of bays. Baits: Shedder crabs, mussels. Time and tide: Day. flood.

Snapper—Young of Blue Fish. August to November. Haunts: Fivers and all tide ways. Baits: Spearing and menhaden; trolling pearl squid. Time and tide: Day, all tides.

Sheepshead—June to October Haunts: Surf and bays, vicinity of old wrecks. Baits: Clams, mussels, shedder crabs. Time and tide: Day, flood only.

New England Whiting—Winter Weak-fish, Frost-fish. November to May. Haunts: The surf. Baits: Sand laut, spearing. Time and tide: Night, flood.

Hake—Ling. October to June. Haunts: Open sea surf, large bays. Baits: Clams, mussels, fish. Time and tide: Day and night, flood.

Weak-fish—Squeteague, Squit. June to October. Haunts: Surf, all tideways. Baits: Shedder crabs, surf mullet, menhaden, ledge mussels, sand laut, shrimp. Time and tide: Day and night, flood preferred.

Blue Fish—Horse Mackerel. June to November 1st. Haunts: Surf, open sea and large bays. Baits: Menhaden, surf mullet and trolling squid. Time and tide: Daytime; not affected by tides.

ANGLING ON SNAKE RIVER.

Lewiston, Ida.

Editor RECREATION:

Of all fresh water fishes none affords the angler more royal sport than does the Columbia river salmon. Its size, cunning, vitality and courage have made it the most famous of game fishes.

The most generally known species is the Chinook, although there are several other varieties in this river; for instance, the steelhead, the blueback, and the dog salmon. All enter the Columbia from the ocean twice during the year, in early spring and in fall. Those fish that are successful in passing the many thousand nets and fish wheels which line both banks of the river for many miles, keep on up stream, becoming more wary as they advance. Though they breast the rapid current of a rough, rocky river in their long journey to the headwaters or spawning-grounds, they take no food after leaving the salt water. Nevertheless, they are generally fat and in good condition when caught.

Only one of the species mentioned, the steelhead, will take a hook, annd then only when it is baited with salmon spawn. This fish is as fine as any and weighs 10 to 35 pounds.

Even when the fish is well hooked, a lone angler can rarely land it, consequently he needs a companion. It is usually a waste of time to try for the steelhead before the first freeze-up. The lower and colder the water the better salmon take bait, and if there is floating ice the chance of success is increased. If an angler drags the river a mile every day for a week without landing a salmon, he need not despair. His time will come when the school comes, and then the fun begins.

About 160 miles above the mouth of the crooked, rocky Snake river, a tributary of the Columbia, there stands on a large sand bar 30 feet above low water mark, the city of Lewiston, Idaho. A mile above the city, where deep water runs slowly around a rapid, is a favorite fishing ground. There, during January and February, may always be found a number of boats, floating with the current over the pool. In each boat will be 3 or 4 men, all but one armed with 20-foot bamboo poles, large 100-yard lines and reels. One man must stay by the oars, keeping the boat headed up stream and ready to stop it if a hook is snagged. When a strike is made there is a pull, a swish, and the salmon leaps 10 feet in air, the line cutting the water like a knife. The oarsman makes for the shore; the angler holds his pole straight and his line taut. The fish lashes the water into foam. Gradually he tires, and little by little is coaxed nearer shore. The oarsman takes the gaff and leans over the gunwale to strike; often only to frighten the steelhead into another and successful rush for liberty.

A new lead sinker of about 4 ounces in weight, with swivel, is attached to the end of the broken line. Also, a 3-foot, 4-ply gut leader, and a quadruple-snelled tarpon hook, on which an ounce of spawn is carefully but loosely wrapped with silk thread. The boat is rowed to the head of the pool again for a new start. If fish are biting well a new strike is soon made, and there follows a tug, a swish, the same character-

istic leap, splash and run. The fish is gradually brought alongside after the boat is at the shore. The gaffsman strikes and the quarry is landed. W. E. Bramel.

FISH SUFFER LITTLE.

I have fished ever since I can remember, without thinking how much suffering is caused by using live bait. Last summer, as I was going with a bucket of minnows to fish, a man spoke to me and showed me so plainly the suffering it would cause that when I got to the river I emptied my bucket and said I would never again use live bait. Would it be possible for the S. P. C. A. to stop the use of live bait? Why have they not done so?

Persons making their own flies will find that the hair of a ground hog, or woodchuck, as they are called, is excellent to use instead of feathers. In can be colored, if desired.

Another thing I have used with success is a pork rind minnow. Catch a live minnow, skin it carefully by splitting down the underside, stretch the skin carefully over the pork rind and you will have a minnow that will fool any fish, though it takes lots of pains to make one nicely. This is a good thing, especially for crappies.

John A. Cooper, Delaware, Ohio.

You are mistaken in thinking it cruel to hook a minnow, a frog or a fish. It has been clearly demonstrated by scientists that these lower orders have little sense of pain. There are hundreds of authentic records of fish having been hooked; having broken the line or leader; and after a few minutes or a few hours the same fish having taken another bait or fly; and when taken from the water the first hook has been found firmly imbedded in the jaw with the piece of line or leader attached. There is one case on record of a perch having been hooked, and of the hook having passed through its eye. When the fish was taken from the hook the eye was pulled out and hung on the hook, the fish, which was small and worthless, being returned to the water. The angler, realizing that this would probably make a good bait, cast again with no other bait than the perch's eye. Within a few minutes he had a bite, pulled up and landed the one-eyed perch he had lately taken from his own hook. This proves conclusively that this fish felt little or no pain at the loss of an eye. Nearly all old anglers have had similar experiences.—EDITOR.

MUSKALONGE HATCHING.

As I intend to start a muskalonge hatchery here, if it is possible, I should consider it a favor if you would tell me what you think my chances would be for selling muskalonge fry at a fair price. What would you consider a fair price per 1,000, delivered. I should have to start on a limited scale.

H. R. Field, Indian River, Mich.

ANSWER.

The New York State Fish Commission has for some years been hatching muskalonge in large numbers at Chautauqua lake. The Wisconsin Fish Commission has also done something with the muskalonge. As the various State Fish Commissions are in the habit of furnishing fry and eggs to one another and to people of their respective States who wish to stock private or semi-public waters, it is not certain but they will be able to fully supply the demand. Whether a private hatchery would prove a financial success is a question. However, the expense of equipping and operating such a hatchery would not be great and the experiment is well worth trying.

Information regarding the muskalonge may be found in the following: The various recent reports of the New York Fish Commission; report of the Wisconsin Fish Commission for 1899-1900; The Fish Cultural Manual, published by the U. S. Fish Commission, which may be obtained by applying to your Congressman; and "Notes on the Fishes of Lake Chautauqua," which may be had by addressing the U. S. Fish Commissioner, at Washington.—EDITOR.

WHAT WILL THESE TROUT TAKE?

The last 2 springs I have succeeded in taking from a small lake in Delaware county, this State, brook trout weighing one to 2½ pounds each. While this fact may not be unusual, the circumstances connected with trout fishing at this particular place are. The ice leaves, or melts, about the time the trout season opens, and for a week or less thereafter trout may be caught with bait. After that time no one has succeeded in capturing more than one small trout, and then only occasionally. After a month, however, none are caught. Anglers have tried numberless schemes to take trout during the later season, but have not succeeded. Can you or some of the readers of your magazine suggest some way to overcome this difficulty? When I was there last spring the natives were discussing the feasibility of stocking the lake with bass. That, in my opinion, would mean extermination of the trout. If some means could be found for catching the trout later in the season, probably no such plan would be carried out.

A. D. D., Binghamton, N. Y.

STOCK WITH NATIVE FISH.

Our Fish and Game Club wishes to restock a small inland pond near here, having

many lily pads, muck bottom and shores, with a little clay at one end, and now containing speckled large and small mouth black bass. Can you give us any information as to what fish would be best to put in this pond; also what varieties of salt water fish can be best propagated in such a pond?

C. E. Trory, Hudson, Ohio.

ANSWER.

The fish already in the pond are the best that could be put in it. Salt water fish will not live in fresh water ponds. The best thing to do is protect carefully the 2 species of black bass already in the pond. If at any time fish are desired to restock the pond apply to the U. S. Fish Commission, forwarding the application through your member of Congress.—EDITOR.

NIBBLES.

The past season found game in the Puget Sound country none too plentiful, which leads me to believe that the game laws need revising. Ducks were especially scarce, due, some claim, to the mild, open winter. The open season on ducks and other water fowl is from August 15th to March. If it were made September 1st to January 31st, hunters would get better shooting, and the birds would not be so wild. There was no open season on quail the past 3 years up to October 15th last. But they, too, need careful consideration from the Legislature. Some good work has already been done, no game being allowed to be sold, except water fowl, during October, to the number of 10. A license fee of $1 is charged in each county. As to trout fishing, Washington can boast of as many and as fine trout streams and lakes as any State.

R. A. Leeman, Seattle, Wash.

A minnow has lately appeared in our lakes, and I am unable to learn its name. When alive and fresh they are entirely transparent. Can you inform me what they are?

John W. Zimmerman, Cosperville, Ind.

ANSWER.

This little fish is the skipjack, *Labidesthes sicculus*, an abundant species in all the small lakes of Northern Indiana. It usually swims in large schools and always near the surface. On sunny, quiet days in fall and early winter they may be seen in great numbers near the shore. It is a delicate little fish, dying quickly, and is of little value as bait. It is our only fresh water member of the *Atherinidae*, or silversides, a large family of small salt water fishes.—EDITOR.

One cloudy day in April Howard Woolverton, Lansing Callan and I rowed up the creek which runs through the fields and woods near Valatie. After we had gone some distance our boat ran against something in the middle of the creek. We backed off with the oars and found the obstacle to be a stake in the middle of the stream. On looking farther we saw 2 similar stakes, and when we looked down into the water we saw a net stretched across from one side of the creek to the other. We knew this was in violation of the fish laws, so we pulled up the stakes and threw the net on the bank. We all try to live up to the game and fish laws.

Kenneth E. Bender, Albany, N. Y.

In an issue of RECREATION last fall I spoke of the excellent black bass fishing in the Delaware river. Since then I have received a number of letters asking for further information as to location of best fishing spots, distance of river from New York, etc. Generally no stamp for reply has been enclosed. If anyone interested in angling for this gamy fish in waters affording good sport, near New York and Philadelphia, will enclose stamp I will be pleased to answer all inquiries promptly, give full directions how to reach these black bass grounds, and all information necessary to make a successful fishing trip at scarcely any expense.

M. L. Michael, North Water Gap, Pa.

Baldwin, Mich.—Andrew Johnson, of Luther, was brought to the county jail to serve 30 days for violating the fish law. Under-Sheriff Filio saw the man draw lines which had been set through the ice in the mill pond and take fish therefrom. When Johnson returned to the village Filio placed him under arrest. The man denied the charge and made a resistance which would have terminated in his escape had not help arrived. Johnson was handcuffed and taken to the prosecuting attorney's office, where 2 trout were found in his pocket, which he claimed were perch. —Detroit Free Press.

By the time Andrew Johnson gets out of jail he will probably conclude that it does not pay to violate the law even for the sake of getting a few pounds of trout to sell.—EDITOR.

Why will the bass not bite in Higgins lake, Roscommon county, Mich.? We have tried every way known, but have never been able to catch a bass. There is no doubt of their being there, as I have seen the natives spear any number of them, but that is not my way of fishing. The lake is 9 miles long, 3½ wide, and over 100 feet deep. The water is so clear that the fish can be seen at a depth of 25 feet.

Wallace Schaum, Hartford City, Ind.

Can anyone answer?—EDITOR.

Trout can be seen by thousands, as they are still in schools. If you were here I could show you a sight that would gladden the heart of any sportsman, and that is a bunch of trout within 100 yards of town. There are at least 5,000 in the bunch, ranging in length from 8 to 13 inches. None were caught there during the close season.

A. L. Smith, Kingston, Idaho.

Edward Swanson, John Smith and J. Johnson were fined $80, $130 and $110, respectively, by Justice Palen, at Smethport, Tuesday, on a charge of catching trout that were under size. The men were fined the limit, $10 for each trout caught, and in default of the money will be required to serve a day in the county jail for each dollar imposed by the justice. It is said that the various trout streams in the county will be closely watched during the present season, and that legal proceedings will be instituted against all violators of the fishing laws.—Bradford (Pa.) *Era*.

I see that in June RECREATION Mr. George Parnell, of Philadelphia, asks for information in regard to good black bass fishing within 80 miles of Philadelphia. If Mr. Parnell will let me know his postoffice address I will give him the information he seeks.

M. L. Michael, North Water Gap, Pa.

Fishing is good here. A native named Howe was fishing in McDonald creek in April and caught 6 rainbow trout weighing 12 pounds. The largest weighed 3½ pounds, and was 20 inches long. I saw many of these trout, but that was the largest. Frank Liebig, Belton, Mont.

I should like some reader of RECREATION to give me some information about the fishing along the coast South of Tampa, Florida, the best place and time to fish, the kind of fish, tackle, etc. Any information will be appreciated.

C. S. Perry, Menlo, Ga.

Will you or some of your readers kindly tell me if it is feasible to cover a clinker-built boat with canvas, and, if so, how to do it.

RECREATION is the best sportsman's periodical extant.

Gaylord T. Young, Cannonsburg, Mich.

Mr. H. C. Wurtsbaugh, Richmond, Ohio, will find good fishing in the Muskingum river, about 45 miles East of Columbus, in Coshocton and Muskingum counties.

H. H. Deane, Mingo Junction, Ohio.

Will some of the readers of RECREATION tell of their experience with automatic reels? I wish to buy one and want only the best.

L. C. Hughes, New Castle, Pa.

THROUGH THE BRUSH.

MRS. J. L. BROCKWAY.

About 8 years ago my husband and I took up a homestead claim in Routt county, about 14 miles from Steamboat Springs, the well known summer resort. At that time deer were abundant in those parts. Elk also could be found frequently, and occasionally small bands of antelope, feeding in the little parks among the hills. In one of these parks I saw a deer feeding one evening when I was out on my first hunting trip. It was a large 4-point buck, but too far away for me to be certain of killing him. I decided to follow a small stream down until I should get within closer range.

Moving cautiously and keeping myself hidden behind the thick willows that grew along the stream, I crept carefully along until I was within easy range of him. I then stepped softly out from behind a large willow to take aim at my deer, but just at that moment he scented me. With his fine antlers thrown high in the air he gave one graceful bound and was off. For an instant my heart sank, but as I watched him disappear in a grove of aspens, I started on again, that time following a small gulch until I came to the top of a low ridge. The brush was high and the aspens were thick. As I stopped to look and listen, I saw what I thought was a deer, peering through the trees and brush at me. I stood quiet a moment until I saw one ear move. Then I raised my rifle and took steady aim at the only spot I could see clearly. I pulled the trigger; then in another instant I was at the deer's side. He was a large 2-point buck and I had shot him squarely in the middle of the forehead.

Then came the task of dressing my prize. It was not to my liking, but I saw no way out of it. I started my work, but at that moment my husband, having heard the shot, came to my rescue.

EVOLUTION.

W. B. CLARK.

Tad-pole, tad-pole,
Nothing to do but eat!
Wait, I pray, a little,
You'll see his lively feet.

Pollywog, pollywog,
Tail, but not a wing!
Wait until his tail is gone,
Now, listen to him sing!

"Cr-o-o-a-k!" But, Oh! a fisherman
Has him on a hook!
Splash! And now a pretty bass
Is ready for the cook.

GUNS AND AMMUNITION.

Anybody can keep shooting all day, but it takes a gentleman to quit when he gets enough.

THE GUNMAKERS AND THE PICTURE BOOK.

Once there were several rich men, who lived in town when it was nice weather. These men liked to have something going on, so they made guns and things. In another town there lived a plain chap, who published a picture book called RECREATION. The book also contained lots of stories, and was printed for the benefit of sportsmen and all others who could appreciate a good thing. For a long time the rich men advertised their wares in this picture book; then all of a sudden they got mad and quit. And this is the way it happened: One day a misguided sportsman, who didn't know it was loaded, wrote to the editor of the picture book, and said that the ramrod of the Snarlin rifle was no good, and that the gun leaked cartridges. Now this was quite true, and more than 27 other sportsmen knew it. Well, the editor published this letter. He had to, you see; for all good sportsmen have a right to say things in their picture book.

But did Snarlin thereafter equip his rifle with a better ramrod, and did he fix up the leaky places in the gun? No, he just got up on his hind legs, and used bad language. He told the editor of the picture book to stop the Snarlin ad right off quick. He said he would advertise his guns on the fences and on big stones along the country roads before he would longer patronize such a rank outfit as the picture book. He also said he wouldn't play shinny in the print-shop yard any more. But the editor only said, "All right, Hank; just fly your kite as quick as you want to, and keep going Southwest by North till you get home." Then Snarlin went to his shack, and got up a little yellow almanac, which said that the editor of the picture book was a humbug of the first water. These almanacs Snarlin gave away by the wagon load, and the country boys were glad of it. They used the little yellow books for gun wadding, and to smoke out woodchucks.

Did the editor of the picture book tear his hair and fall in a fit over what the gun man said? Well hardly! He just said in a loud voice to the sportsmen everywhere, "Come on, boys!" and the boys came on a-flying, and subscribed by thousands for the picture book. This boosted business so that the editor had to rent another typewriter and hire an extra hand to help work the printing press. The picture book became more popular than ever, and the gun man said he'd be essentially cussed if he could see why it was. Then he got mad again, and printed another almanac. This last almanac contained a whole lot of language, and the small boys used it to smoke out more woodchucks.

Well, things ran along all right for a while, and the world didn't come to an end at all. The picture book circulated all over the country. It also went to lots of places away from home. Folks said it was a hummer. Then one day a sportsman wrote the editor as follows: "Dear Sir: I was out shooting a week ago last fall, and wishing to load my gun, I put my hand into my pocket for some Skeeters shells, but found I had left my ammunition at home, so the cartridges were no good for my gun that day." The editor published the forgetful man's story, and Skeeters stopped advertising in the picture book, saying that he just wouldn't stand it to have his cartridges run down in that way. Again the editor said, "Come on, boys!" and again the boys came on with lots of subscriptions.

And yet once more a sportsman wrote a letter saying that he had intended to buy a Weevens rifle, but failing to find the Weevens ad in the last issue of his picture book, he had purchased a different breed of rifle, and had found it all right. Then a Mr. Rage, who works in the Weevens foundry, laid down his shovel, took his pipe out of his mouth, and said a lot of cross words to everybody in sight. Those were busy times all around.

For a third time the editor called to the boys to come on, and this time they came on so fast that he had to buy a new book in which to write down all their names. The picture book boomed as it had never done before. Everybody wanted it. This was pretty tough on Snarlin, Skeeters, Weevens & Co., and they just stood around and made faces at the sky. Then they cussed some more, and wished the pigs had eaten them when they were small.

Moral: When a man starts in to do up a picture book, he wants to be sure that the publication has no backing.

A. L. Vermilya, Columbiaville, Mich.

COMMEND THE 20 GAUGE.

In reply to E. C. Statler and others: I have a Lefever ejector 20 gauge which I used last season. Its light weight and slight recoil make it a most desirable gun for upland shooting. A gun 6¼ pounds in weight can be carried all day without fa-

tigue. The barrels are 28 inches. Right, modified; left, full choke. Load, 2¼ drams Shultze and ¾ ounce Nos. 6 or 7 shot. With such a gun quails or grouse may be shot at 20 to 40 yards without being cut to pieces, as often happens with a full choke 12 gauge. The 20 gauge seems just as effective as a 12 gauge. The lighter gun appears to have the best of it in the brush, while the 12 gauge, with its closer pattern, gives more time for deliberate shots in the open. The 20, with ⅞ ounce of shot, gives good results at target thrown from a Magan trap. I see the Remington people advertise 24 and 28 gauge guns. These should be nice, light little guns, but would have to be held near the right spot, as the spread of shot would be still more limited than with the 20 gauge. F. C. King says he loads his 16 gauge with ⅞ ounce of No. 1 shot and kills woodcock at 40 to 55 yards. When I used a 16 I loaded with one ounce of No. 7 or 8 shot for woodcock and snipe.

Hewlin, Shamokin, Pa.

E. C. Statler wishes to hear from sportsmen who have used 20 and 28 gauge guns. I have used the different gauges from 10 to 44, and find a 20, 24, 28 or even 44 effective for squirrels, grouse, quails, rabbits and woodcock. I think it better to have them cylinder bored. I am using a 44 gauge now, and have killed with it rabbits at a distance of 6 rods. I use a brass shell loaded with 2 drams black powder and ½ ounce No. 8 shot, and can kill a bird, squirrel or rabbit 5 or even 6 rods nearly every time. I like the 24 and 28 gauge better, as with them I can use paper shells and nitro powder. Parker Bros., who advertise in RECREATION, manufacture guns as small as 28 gauge, and they are beautiful arms. The Lefevre Arms Company makes guns of 20 gauge and larger. I have been a reader of RECREATION 5 years, and regard it as the best sportsmen's journal published. It is doing wonders for the preservation of our game.

Dr. E. F. Preston, Ticonderoga, N. Y.

Tell E. C. Statler, Grand Island, Neb., and G. C. G., Indian Head, N. W. T., that I have as a knockabout gun an Acme Davenport 20 gauge. They are advertised in RECREATION. Our expert gunsmith, Dan Gerhart, put an old fashioned egg-choke in the barrel. This improvement has made the gun a powerful little arm. At the trap I have done 80 per cent shooting on blue rock targets at 12 yards rise. Use Winchester repeater shells, with No. 6 primers, 2¼ drams of DuPont smokeless powder and ⅞ ounce No. 7½ chilled shot. In the field use ¾ ounce of No. 8 chilled shot.

M. L. Herbein, Reading, Pa,

THE MERITS OF SEMI-SMOKELESS.

For the sake of Brother Stubb, of Oswell, Ohio, and others, I want to answer his question in January RECREATION, regarding semi-smokeless.

Our Mr. Worden won the King tournament trophy last February, with a score of 25 straight, at Blue Rock targets, unknown angle, using 2½ drams of semi-smokeless in brass shells. He made the only straight score, and was the only man using semi-smokeless exclusively. The boys here are well pleased with semi-smokeless for trap and field use. It is a splendid load at a moderate price; and as a rifle powder our experts consider it unequaled. As a result of repeated tests, would say that ffffg. is best for trap work at targets, as it is quickest. The fffg. is better for field work, for though a trifle slower, it is a harder hitting load at long range.

Always use black powder primers with it, as nitro primers set it off too quickly, causing excessive recoil. Semi-smokeless appreciates good thick elastic wadding, and plenty of it; though it can be used successfully if wadded as you wad for black powder. Would advise Brother Stubb to use one nitro card wad, 11 gauge, and 2¼ inch nitro felt wads 10 gauge, in his No. 12 brass shells, over powder; thin wad over shot. He would do well to begin with a scant 2 dram load, and work up by experiment to the best load for his particular gun.

As he is perhaps already aware, semi-smokeless is the discovery of our old friend Milt Lindsley, which should be enough for those who knew and admired his earlier product, the old American wood powder.

E. L. Tiffany, M.D., Wilson, N. Y.

I noticed an inquiry from Stubb, Orwell, O., about a semi-smokeless that could be used in brass shot shells. Here is a load that will give the best of results in brass shells, and will do them no more injury than black powder. Use new shells, or old ones will do, if they can be made perfectly clean. Take a thin tube about 3½ inches long, the size of an ordinary lead pencil, and place it inside shell, over the primer pocket. Put 12 grains fine grained black powder into the tube; DuPont is good. Then put into the shell outside the tube 2½ or 2¼ drams (black powder measure) of DuPont shot gun smokeless. Remove the tube, and wad as an ordinary smokeless load with one cardboard and 3 black edge. Give powder only a snug hand pressure. This load will work equally well in paper shells. Any primer will do. If any readers of RECREATION try this load, I shall be glad to hear how they like it.

O. E. Raynor, Meadville, Pa.

REMINGTON VS. STEVENS.

In the February issue of RECREATION Mr. Stokes speaks favorably of the Stevens people as contrasted with the Remingtons of the old régime, and, while he admits the courteousness of the new management, he says: "I fear it is too late to regain their old place, even with that most excellent and most beautiful repeater, the Lee-Remington, which they now place on the market." I have had some experience with the Stevens Favorite. It has their Ideal action, lever, link, and breechblock, and is presumably as well made and as durable as the same action on one of their larger and more costly rifles.

A friend asked me to get him a rifle. With full knowledge of the accuracy of the Stevens weapons, and an abiding faith in the excellence of their mechanism; allured, too, by the cheapness of the arm, I bought him a Favorite. We set up a target and proceeded to try the acquisition. As my weapon I had a Remington No. 4, which I had bought a year earlier for my boy, who had loaned it to a juvenile friend, who, after shooting it with black powder shorts until it was as foul as a pigsty, set it in the stable for a month. When I got possession of it, it was a discouraging proposition, but I put in a half day of hard work with the wiping rod and hot water, and at last got it into shape for use.

This I pitted against the little Favorite. The latter had all the famed accuracy of the Stevens output and a delicacy of trigger which made it a delight to use, and my friend was soon handling it in great style. Bulls-eyes and centers were in order at 25 yards, off hand.

For a time my friend was the happiest man in Maryland. Presently, however, the lever began to droop, and hang loose. The manufacturers gave instructions, in such cases, to tighten, or loosen, I forget which, a screw in the extension of the breechblock. This helped matters for a time, but it had soon to be done again, and as age grew on the gun it became more and more clanky. The screw would work back again into the droopy place at once.

At last he grew discouraged. I took the little rifle off his hands, made him a present of a .25-20 repeater, and disposed of the Stevens elsewhere. It is in good, careful hands; its present owner can make a bulls-eye look like 30 cents; and the accuracy of the rifle is up to the high standard of the Stevens goods. Its former owner, still desiring a 22, has bought a Remington No. 4, and is happy again.

W. H. Nelson, Washington, D. C.

OLD WEAPONS AND A NEW ONE.

In April RECREATION A. Kennedy, Missoula, Mont., describes a peculiar rifle with straight grooves, and asks if any reader has seen a similar gun. In reply, I will say that such weapons are known as straight cut rifles, and were once much used and well liked for their accuracy, hard shooting and small powder charge. Both shot and round ball can be used in them. They were noted as close shooters with shot, and were much used at shooting matches.

I have one of those rifles which my father used as a match and squirrel gun. It has a 5-foot octagon barrel, on rifle stock, and was made by J. Baer, but where I can not say. It was originally a flat lock, altered to percussion, and was my first rifle. The stock extends the full length of the barrel. There are 8 grooves. It uses about 60 balls to the pound. Guns of this class, together with the smooth bore, were made by Lehman, Gompf, Eichholtz and several other gunsmiths of Lancaster, Pa.

I have another gun, known as a 2 groove rifle. It is a double barrel express, muzzle loading, percussion, made by I. Blanch Sons, London, England. The material is of the finest, the finish artistic, and the locks clear as a bell. It weighs 7½ pounds. The barrels are 28 inch, and there are 2 sets; one rifled with 2 grooves and the other bored for shot. The grooves of the rifled barrels are ¼ inch wide and 1-16 inch deep, and have a slow twist. The balls used are both round and conical. The conical balls have on the sides at the base 2 wings, which fit into the grooves, and the spherical ball has a zone or belt entirely around its circumference for the same purpose. The round balls are 10 to the pound and the conical balls 8. The bore is about 14 gauge.

I have lately come into possession of a Mauser automatic repeating pistol made in Spain. It is graceful and elegant, with a 4 inch barrel, nickel plate, blued body, receiver and base, and pearl stock. I have found it not entirely satisfactory, as it does not always discharge, and a cartridge sometimes flies from the top of the magazine. Neither does it always extract as it should.

E. E. Stokes, New York, N. Y.

PREFERS THE SAVAGE.

L. G. S., of Brooklyn, asks in September RECREATION if the Savage rifle ever balks. When Winchester cartridges are used it will balk. The Savage rifle cartridges made by the Winchester Co. are longer than those made by the U. M. C. and Savage companies. With cartridges manufactured by or for either of the last 2 named firms it is absolutely impossible for the Savage to clog, whether working the lever fast or slow. I have repeatedly tested the extracting properties with other

repeaters, with results in speed and certainty of action in favor of the Savage.

In answer to the query, is the Savage .303 better than the Winchester 30-30, I say yes, both in power and accuracy. The Winchester 30-40 more nearly approaches the Savage in execution. However, there is a 30-30 Savage. M. L. Parshall, of Chesaning, Mich., writes of a fault of the Savage rifle which I have not found to exist, namely, that the soft point bullet will not penetrate bone. I have used the Savage to kill horses and large dogs and never failed to penetrate any portion of the skull I chose with a soft nose bullet. I once shot a buck at 200 yards with a soft nose bullet, which smashed the shoulder and passed out of the animal's breast. I saw G. W. Powers, of Thomson, N. Y., shoot a large doe while running, with a Savage rifle, using a soft nose bullet. The ball struck the animal back of the left ear, splitting her head completely.

If suitable ammunition is used with the Savage the results will leave nothing to be desired. I have owned and shot Winchester, Ballard, Remington and Stevens rifles, and while they are admirable in many ways, I think the Savage is the best. While the selection of a rifle is largely a matter of personal preference, no one will make a mistake who buys a Savage.

W. B. Webster, Schuylerville, N. Y.

RECOMMEND NO. 44 STEVENS.

After a lifelong experience in the gun business and after using all calibers of Stevens No. 44 Ideal rifles I advise W. S. Mead to buy the 25 Stevens. It costs less and has as much killing power as the 32, with a much flatter trajectory. I have shot geese through and through with it at 250 yards. I find the Stevens the best all around gun I ever used. I prefer U. M. C. ammunition, although the Winchester smokeless is good. I have hunted most kinds of game and for small game prefer the 22 long rifle. For large game I have never used anything equal to the .303 soft point Savage. That gave me the best results on bear and deer. I have no use for the Marlin. I have owned 3 and have repaired hundreds and never saw one that would not stick just when most needed.

H. C. Clippinger, Akron, O.

In answer to M. S. Mead, Woodstock, N. Y., I would say that I use a Stevens Ideal No. 44, 32 rim fire rifle, and am much pleased with it. I do not use either the long or the short cartridge. Both are inferior to the 32 long rifle, inside lubricated. With that cartridge I have done good work at about 440 yards. I have shot pigeons at 100 yards without raising the sights at all.

Allyn Tedmon, Ridgefield, N. J.

Answering W. S. Mead, Woodstock, N. Y., I have a No. 44 Stevens 28-30, which I consider one of the finest shooting guns I ever saw. No gun will do more than fairly accurate work using the 32 caliber rim fire cartridges. They can not be depended on for close shooting over 100 yards. The 22 long rifle and the 25 rim fire are much more reliable.

Garvey Donaldson, Macksburg, O.

ANSWER REPEATER,

Repeater, of Jamestown, N. Y., asks as to the necessity of using wads over and under ball in an old army revolver. I have a 44 army revolver, 8-inch barrel, weighing 3 pounds. I use 40 grains Du-Pont f.f.g. powder, without wads of any kind. The balls, round, 140 grains, conical 211 grains, fit the chamber so tightly there is no escape of gas. Recently I fired 36 shots at 50 yards. All were placed within the diameter of a dinner plate. A saucer would have covered most of them. The balls will penetrate 3 inches of wood at 50 yards, and are accurate at 100 yards. I enjoy RECREATION exceedingly, and have learned much from its gun and ammunition department. The letter in January issue by Ed. J. Anderson is as sensible an article as I ever read relative to would-be sportsmen praising or condemning certain makes of goods. If some Willie borrows a gun and a few cartridges for his annual half-day hunt, and finds that the gun goes off when he pulls the triggers, he straightway inflicts on a suffering world his opinion that such and such are the only guns and shells fit to use. Or, if a shell misses fire, he is equally positive in condemning the entire output of its maker. I have used Winchester and U. M. C. ammunition, 22 to 45 caliber, in several makes of rifles, also their shot cartridges, and have yet to miss fire.

F. B. S., Rochester, N. Y.

In reply to Repeater, Jamestown, N. Y., would suggest that it is not necessary to use wads in his 44 caliber Civil War revolver. With pointed bullet use 20 grains fine black powder, about f. f. g. If using round ball, use not over 15 grains, or the bullet will jump the rifling.

Garvey Donaldson, Macksburg, O.

WHAT THEY THINK OF THE MARLIN.

You are doing a good work. Keep it up! Everything that is said in RECREATION about the Marlin rifle is true. If you could be in the position I was with one of their guns, you would say more than

you do. I had to take a spike nail and hammer to get the cartridge out. I worked with the gun until I was tired and finally gave it to an old darky for a pint of chestnuts. The blamed thing would make a parson cuss his existence.

Hugh Woodward, Knoxville, Tenn.

W. F. Sheard, of Tacoma, Wash., in his gun catalogue has the following to say regarding Marlin guns:

I do not manufacture, recommend, or guarantee Marlin rifles. If they chew up the heads of the cartridges, or clog up in the action and magazine, it is not my fault; so do not ship them back on my hands. I have Marlin rifles for sale for those who want them, but when sold and delivered, my responsibility ceases.

L. E. Nelson, Tacoma, Wash.

The following quotation from Shakespeare is respectfully called to the attention of Mr. Marlin and the Peters Cartridge Company.

"Happy are they that hear their own detractions and can put them to mending."

J. J. Morcom, Hartford, Conn.

I have no use for the Marlin rifle. It is the biggest humbug I ever saw. I lost a chance to get a shot at a black bear by a shell catching in the lifter. The .30-40 Winchester is, in my estimation, the only gun. G. L. Manor, Postfalls, Idaho.

THE ADVANTAGE OF A STRAIGHT STOCK.

In July RECREATION Henry Merlin asks, "Why can not one get a gun with 3½ inch drop without paying extra?" and further says: "Straight stocks seem the fashion at present, and one can see long necked men at the trap kinking their spines to bring the eye to the level of the barrel. If those men were quail hunting in thick cover they would in almost every case shoot under their birds, not having time to bring the cheek down to the gun."

I have by experience learned the opposite; and think the shooters referred to overshoot when they miss. It is the crooked stock guns that shoot under. About 10 years ago crooked stocks were popular, and at that time I ordered my first hammerless gun. The dealer told me that, as I had a long neck, a 3½-inch drop would be correct. The gun invariably shot under the birds.

Now I use a gun with 2⅝-inch drop, with better results; the straighter stock throws the aim high, and as birds and targets are nearly always rising the shooter must hold over or miss. Sometimes we aim point blank at a straight-away bird and pull the trigger, when we know we should have held over. The straight stock will help us to avoid that error,

Again, the small shot used for quail or target shooting will drop about 5 inches at 40 or 45 yards, and I believe that some guns are bored to shoot a trifle high to overcome the drop. When the gun is not so bored, the remedy must be found in the straight stock.

C. W. Gripp, Pacific Beach, Cal.

NOT DOGS BUT POT HUNTERS.

I have noticed in your magazine a consensus of opinions against the use of bird dogs in hunting game birds. Someone said that if sportsmen must keep and use dogs they should pay $10 a year license fee. That gentleman has, no doubt, overlooked the fact that thousands of people own dogs of one kind or another in the large cities and are now paying an annual license fee of $1 to $2. In Baltimore a fee of $2 is required for the first year's license and thereafter $1.50 annually. About three-fourths of the sportsmen who gun for game birds are owners of bird dogs. The other one-fourth who also hunt game birds do so without dogs. The pot hunter tracks birds in the snow, or watches where they feed, and early in the morning takes his pot gun and kills as many birds with one barrel as a self respecting sportsman, hunting with a dog, would bag in a 2 or 3 days' hunt, where birds are not plentiful.

It is not the man who kills birds for sport that is helping to deplete our available stock of game birds. Far from it. The market hunters destroy every year a far greater number of birds than the ordinary sportsman will ever take. Let some of these fellows who talk so much do their little mite toward preserving the birds through a severe winter and they can feel assured that they have accomplished something. However, most of them think that "they also serve who only sit and wait."

H. J. E. Thomas, Baltimore, Md.

WHY SAVAGE DOES NOT MAKE A 30-40.

Utica, N. Y., U. S. A., May 5, 1902.

In reading your always interesting magazine, I came across the article by F. Q. Rutherford, of Chihuahua, Mexico. There is a good reason why the Savage Arms Company has not, up to date, manufactured a rifle to take the 30-40 Government cartridge. It is this:

The Government has condemned the 30-40 cartridge, and has designed a superior one, which they are adapting the Krag to use. The cartridge will be seamless shell, 30 caliber, with better velocity and more accurate than the 30-40 now used by the Government. A complete set of tools to manufacture a new rifle costs $45,000 to $60,000, and it was but wisdom to wait until the new cartridge was designed and

adopted before going to such an expense, because as soon as the new cartridge is issued to the U. S. Troops, the present 30-40 will be an obsolete cartridge. One of the greatest advantages claimed for the 30-40 ammunition is the fact that the Government ammunition can be procured in any part of the country, especially where there is a military post. As soon as possible, the Savage Arms Company will manufacture a rifle to take the new cartridge, but it will be 18 months or 2 years before this can be turned out for the market. The 22 caliber is under way, and will come out this fall.

Arthur Savage,
Managing Director Savage Arms Co.

TO PREVENT RUST.

Some of your readers have asked for advice regarding the prevention of rust in small caliber rifles, and have been advised by others to clean the gun thoroughly and then draw an oiled rag through it. That is excellent as far as it goes; but it by no means goes far enough. I have had a rifle so treated rust badly in 2 weeks. The reason is obvious; acid in the oil. Most lubricating oil is unfit for such use. The officers of the Ordnance Department and Artillery Corps of our army know well that ordinary oil must not be placed in the carefully machined recoil cylinders of heavy guns, and accordingly use only special oil furnished by the Ordnance Department after careful test of its neutrality.

The safest protection for guns is probably the gun grease sold by reliable manufacturers and to be had of any gun dealer. My shot gun does not rust when stored for months or when used in rain or even in salt water spray. It is protected by grease made by Scott & Richards, Boston. So little grease is required that the gun appears perfectly clean and does not soil hands or clothing. A 15 cent tube contains sufficient to keep a shot gun a year even if the grease be used after every hunt and at the rate of 2 hunts a week.

R. R. Raymond,
First Lieut., Corps of Engineers, U. S. A.,
Montgomery, Ala.

A RECORD-MAKING REMINGTON.

In March RECREATION C. A. M. asks about the shooting qualities of the Remington double gun. I have been using one 2 years in the field and at the traps for both live and clay birds, and will tell him my experience.

The gun I use is an A. grade, 30 inch full choke Damascus barrels, patterned at 336 left and 334 right, with f.f.g. powder and No. 8 shot. I have made as good patterns, or nearly so, with No. 7½ shot and Ballistite powder. Also with Laflin & Rand new Infallible powder. Am using the latter at present with No. 7 shot.

I began trap shooting with this gun in May, '01, and as I never had shot over traps before I did not make a brilliant showing. Now I am able to make 22 or 23 right along and have made 25 straight. Am shooting against Parker, Ithaca, Marlin, Trancotte, Smith and Winchester guns, and my gun has the high record in this club and town. If C. A. M. wants a gun for trap work 30 inch barrels probably are best; but for brush I should choose 26 inch barrels, right open and left slightly modified.

Dr. R. L. Williams, Kane, Pa.

U. M. C. BETTER THAN GERMAN.

I saw in January RECREATION an article on the Mauser by E. E. Stokes, giving his experience with German and U. M. C. ammunition for that gun. I have a 7 m-m Mauser, and have found the same trouble with German-made ammunition that Mr. Stokes did, but I have had no trouble whatever with U. M. C. shells. The U. M. C. Co. uses Troisdorf powder in loading Mauser cartridges, and I fail to see why it should not be as powerful here as in Germany. I load my own ammunition, using DuPont's 30 caliber military powder, 40 or 42 grains, and U. M. C. 7 m-m bullets. Occasionally a shell will split at the first discharge, but I have a clip of 5 shells that have been fired 12 times each with full charges of DuPont powder, yet show no signs of weakness. With that charge, 42 grains, I have put a full metal jacketed bullet through a green button ball tree 26 inches in diameter, at 200 yards range.

Am sorry the Laflin & Rand Co. do not advertise in RECREATION, now, for they make the best shot gun smokeless I ever used.

L. H. Higgins,
Master S. S. Admiral Sampson.

ANSWER E. E. VAN DYKE.

Readers of RECREATION at this place think E. E. Van Dyke should have filed an affidavit with his story in the February issue. That was a wonderful little rifle he had. Mr. Van Dyke could draw a large salary in a gun factory. They could fit him out with a hickory log, and shut down the other machinery. If he can straighten a rifle barrel by whanging it over a stump, he can doubtless, also, enlarge the bore by blowing through it.

C. E. Wilson, Mt. Carlon, Colo.

In February RECREATION is an article by E. E. Van Dyke. He shoots a deer through the heart with a 30-30 and it runs 250 yards before falling. Again he shoots 4 deer

with 4 shots at 75 yards with a Stevens 22 and they all drop dead in their tracks. Mr. Van Dyke forgot to send salt along with the story. Silver Tip, Sicamous, B. C.

I move that E. E. Van Dyke be awarded a leather medal for his article in February RECREATION.

A. M. Hare, Bay City, Ore.

STILL HITTING PETERS.

Schenectady, N. Y.

Peters Cartridge Co.,

Cincinnati, Ohio:

Dear Sirs:—As a friend of RECREATION and fair play, allow me to suggest that you promptly renew your advertising contract with Mr. G. O. Shields. It is, in a sense, none of my business: but I think Mr. Shields is right. Unfavorable comments occasionally act as salt to the dish, and do a good article far more good than harm.

Yours truly, John A. Learned.

Penn Yan, N. Y.

Messrs. Peters Cartridge Co.,

Cincinnati, Ohio:

Dear Sirs:—I notice in RECREATION a letter of yours that looks flunkey. Why don't you widen the rim of your cartridge a little, to fit the best brush you make, and not kick because some honest sportsman finds an honest fault with an honest fact. Hope your difficulties will be amicably arranged. Shooters are watching.

Respectfully, H. R. Philips.

HOW TO RELOAD 30-30 SHELLS.

I thank H. B. Rantzau for the information he gave in October RECREATION about loading 30-30 shells with round balls. I tried his load and found it extremely accurate. I used a 22 long shell full of Laflin & Rand sporting smokeless powder. It is clean, but not more than half the charge burns. That does not seem to affect the accuracy, but the unburned powder runs back into the action when the gun is turned up. Instead of a tack hammer for seating the bullets, I use steady turning pressure against a soft pine board. This ammunition will run through the magazine of my 30-30 Savage if the balls are firmly seated. I like to read the opinions of Jack Pattern, F. J. Grube and others who understand guns. It would be a great treat for readers of the gun and ammunition department if the editor would publish an illustrated article describing one of the large gun factories and telling how rifles and ammunition are manufactured.

M. P. R., Tylerhill. Pa.

PREFER THE 25-20 WINCHESTER.

In reply to A. J. Lang, Rondout, N. Y., will say I have owned a number of rifles of various makes and calibers, and have found the 25-20 single shot as good a target rifle as any. It is extremely accurate within its range. As a game gun, I have not used it much except on woodchuck. One day last summer I killed 9 in 2 hours at various ranges up to 100 yards.

C. W. Ditsworth, Lanark, Ill.

Tell A. J. Lang that the 25-20 Winchester as a target and hunting gun is all right. I have killed ducks with mine where it would have been impossible to reach them with a shot gun, and where a larger rifle would not have left anything but feathers. For target work there is no more accurate arm, not excepting the Stevens. J. B. Watson, Muncie, Ind.

SAPOLIO WOULD SCRATCH RIFFLE BARRELS.

I noticed in January RECREATION an article by George McLean on how to keep small bore, smokeless powder rifles clean. He recommends the use of Sapolio. That, no doubt, will do the work effectively, but how about the scratching? I had occasion the other day to use Sapolio in removing spots from the surface of a lamp chimney. I succeeded; also succeeded in scratching the chimney so as to almost ruin it. Flint glass is harder than even Krupp steel. Of course the abrasion would be slight each time and not noticeable at first, but I am mistaken if it would not ruin the rifle in time; and I wonder by what reasoning he arrives at the conclusion that by leaving the breech block open, the inside of the barrel will not rust whether cleaned or not, providing the inside is dry? I never heard of that theory, but there are doubtless many good things I never heard of.

A. L. Hull, Denver, Colo.

SMALL SHOT.

In March RECREATION I notice W. H. May's comments on W. D. Gruet's squirrel shooting with a telescope sight. I have one of Cummins' 'scopes on a 38-55, and from my experience should say that such shooting as Mr. Gruet's would be almost impossible off-hand. I am glad to see W. H. Long stand up for the old 38-55 Winchester. With the smokeless, soft point bullet, I believe it powerful enough for any game in this country. It is one of the easiest shells to reload, being straight. Another advantage is that everlasting shells can be had in this caliber. They do not need to be resized, and are practically indestructible. I use them for practicing

only, as they can not be put through the magazine. I should like to hear from someone using a Stevens 22-15-45 or 22-15-60, as to its power, range, etc.

H. D. Chisholm, Dalhousie, N. B.

I saw recently a letter in RECREATION advising the use of hot water to clean gun barrels. I think such advice is an error. I have read that hot or boiling water will injure gun barrels by destroying their temper, which looks reasonable. It does not seem necessary to use water, either hot or cold. A good brass cleaner, followed by an oiled swab or rag, will clean a gun more quickly and better than any other method, and can not injure the gun. As a rust-preventive, when a gun is to be set away for some time, there is nothing better than boiled linseed oil. Applied to the inside of the barrel, it dries and forms a thin coating, impervious to moisture. Have found it a perfect way to preserve the gun when not in use. The first shooting will remove it. W. A. Remele, Bridgewater, Vt.

In reply to the question of R. M. C., would state that in a letter the Savage people say: "The penetration of the full jacketed .303 Savage cartridge is, approximately, 50 inches in pine. We have proven this a number of times." The Winchester people write me as follows: "The .303 Savage has a velocity of 1,840 feet and a penetration of 33 pine boards, each ⅞ inches thick, at a distance of 15 feet from the muzzle. This is with the full metal patched bullet.

"Under identically the same conditions, the .30 U. S. A. and .303 British full metal patched bullets have a velocity of 1,960 feet a second and a penetration of 58 boards." H. L. Pugh, W. Phila., Pa.

I should like to hear through RECREATION from someone who has used the Luger automatic revolver on big game. Would it answer in the place of a rifle to kill game for food where game is plentiful and can be approached within 50 to 100 yards?

A. L. Taber, Santa Ana, Cal.

The Luger automatic pistol has about the same power as a 32-20 black powder cartridge shot from an ordinary hunting rifle and would have approximately the same effect on game as this charge. The greater skill required to shoot a revolver would, however, make the chances much less of hitting game than with a rifle at ordinary hunting distances.—EDITOR.

Please tell Mr. Alexander, of Minneapolis, I had the same trouble with my rifle sights that he writes about. Even when I equipped my rifle with the Lyman peep and club sights I could not see well enough. Explaining this difficulty to my oculist it was suggested that a glass corresponding to that which I used be applied to the cup disc of the peep sight. This removed the difficulty at once and I can see perfectly with my sights, without other glasses. This idea is not new, but as it fits Mr. Alexander's case he might be glad to know it. J. Doux, Utica, N. Y.

I recently bought some of the new lubricated wire patched bullets made by the National Projectile Works of Grand Rapids, Mich., and found them all that is claimed. I gave them a thorough test with black and smokeless powders of various kinds and charges and in different guns. They are the best bullets I have ever used, and I have been hunting big game many years, making collections for museums, etc.

Albert R. Beymer, Rocky Ford, Colo.

In answer to H. F. L.'s question in September RECREATION as to which is the best rifle, a 25-20 or a 32-20, would say I wrote the Winchester Arms Co. on the same subject, stating that I wanted a gun for small game and target shooting up to 200 yards. They answered as follows: "We believe you will find the 32-20 rifle more satisfactory than the 25-20." I took the hint, bought a 32-20 and have never regretted the choice. Single Shot, Milwaukee, Wis.

Say to D. R. McLean that he will be well pleased if he buys a Winchester rifle. I have a '92 model, 38 caliber, 22 inch octagon barrel, which I would not exchange for any gun I ever saw. On a camp hunt last fall I killed 3 deer, 5 turkeys and a panther with it. Have also a Spencer repeating shot gun for ducks. With any sort of a chance it will stop 3 or 4 birds out of a flock before they can get out of range.

F. L. Smith, Clarksdale, Miss.

In reply to W. E. C., of Salem, Conn., will say I have used a No. 44 Stevens Ideal 25-20 nearly a year. W. E. C. will make no mistake if he gets one. My gun has a 30-inch barrel, with Lyman combination sights. I have killed woodchucks 15 to 110 steps with it. I have shot rabbits, squirrels and large hawks. It does its work if held right and has more penetration than one would think.

W. C. N., Barboursville, Ky.

In March RECREATION James Colton, of Normal, Ill., is quoted as saying "Peters 22 cartridges will fail to explode about 1 in 5." My experience with them has been different. Within the last 60 days I have used not less than 800 without one miss fire. I have a Winchester repeater and for accuracy and reliability it is all one could desire. Perhaps Mr. Colton's gun was at fault.

Chas. J. Hill, Bridgeport, O.

F. L. N., who asks for the address of a maker of 28 gauge shot guns, is advised that the Remington Arms Company, Ilion, N. Y., makes a 28 gauge gun in several different grades. If he will write these people they will give him full information.

J. D. H., Port Jervis, N. Y.

I own a Remington hammerless, grade A, 12 gauge, weight 8¼ pounds. It is a gun I cheerfully recommend without qualification. There is no better medium priced gun made. I enjoy RECREATION more and more with each successive issue.

W. G. Fanning, Lubec, Me.

I don't see how anyone that ever shoots a gun can get along without RECREATION. I find something in every number that is worth more than the price of the whole year's subscriptions. Give us more about guns and ammunition.

Geo. Burns, Salina, Utah.

The .30-40 and .303 carbines are excellent for large game, especially for bear or elk. The .30-30 is a trifle small for such game. A big silvertip would eat a whole box of .30-30's and a man or 2 besides, before giving up.

Sam Stevens, Cripple Creek, Colo.

Like Glenn McGowan, I, also, like the Stevens Favorite rifle. Have had one 2 years. Recently I killed a crow with it at 135 yards, using a Winchester 22 long, smokeless cartridge. I use a Lyman rear sight. F. Winton, Spring Hill, Tenn.

Ed. J. Anderson, in January RECREATION, advocates the use of olive oil for the inside of a gun. I have always found any vegetable oil inferior to other oils. I think others have said the same in RECREATION.

W. S. Brown, Oxford, O.

We are organizing a gun club, no member of which can be over 23 years or under 16. No game hog can get in under any circumstances. The club allows each gun 15 quails a day. It now has 30 members.

C. C. Greisenbeck, Bastrop, Texas.

Please tell me through RECREATION, what would be the effect of a 22 caliber mushroom bullet on a woodchuck? Also, what is the carrying power of 22 long and long rifle bullets in a Stevens crack shot rifle?

Crack Shot, Hudson, N. Y.

While so many are praising high power guns, nothing is said about the .40-72 Winchester. It is an accurate and powerful weapon. I should like to learn the opinions of others about it.

D. C. Hoisington, Amsden, Vt.

Will someone please tell me if the 32 Ideal cartridge is accurate when used in a Remington No. 3 rifle? I have been told that in that shell the lead and powder load are disproportionate.

E. A. Bunts, Ellsworth, O.

Will T. R. S., Ithaca, N. Y., kindly send me description of the tool he made for counter-boring brass shells to use Winchester No. 4 primer; also state how he did the work?

John E. Connor, Concord, Mass.

What kind of sights are most serviceable for general use in game shooting? I have a Savage .303. Will some sportsmen kindly give me the benefit of their experience?

D. W. Gans, M.D., Massillon, O.

Will some of your many able correspondents tell me how the 7 m. m. and the 8 m. m. Mauser rifles compare in power with the American 30-40?

Vindet, Pittsburg, Pa.

Will you or some of your subscribers please give me information as to the loading of 12 gauge shells with E. C. or Laflin & Rand powder?

Frank A. Ward, Sterling, Ill.

Mr. A. G. Burg, who asks help in choosing a medium priced gun, will find the Parker and the Lefever among the best on the market.

H. V. Bell, Columbia City, Wash.

Will some readers of RECREATION kindly relate their experience with lubricated wire patched bullets used in quick twist rifles.

F. P. Vedder, Broadalbin, N. Y.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

THE FLYING SQUIRREL.

Somerset Co., Pa.

Editor RECREATION:

I notice that someone asks through RECREATION for information concerning the little grey, or American, flying squirrel. I am glad of an opportunity to call attention to this beautiful little creature which, owing to its timid disposition and strict nocturnal habits, is little known. Even the naturalists seem to neglect it, which is to be wondered at, considering its surpassing beauty and its remarkable aërial powers. It is but a tiny creature, hardly so large as a chipmunk, yet it affords wider opportunity for nature study than a grizzly bear. It is clothed in long fur, as fine as the silk of Minerva's own spinning, which puts to shame the spider. It is dark grey brown above and as white as the snows of heaven beneath, the colors not shading into each other, but with an abrupt line of demarcation which follows along the edge of its "parachute extension." Its eyes are large and, like those of all nocturnals, black. Its distinguishing feature, which makes it a flying squirrel, is the broad band of skin connecting its front and hind legs. Worthy of special notice also is the peculiar structure of its tail. The hairs, which are firm, but not stiff, are so arranged along the sides as to form a flat or slightly concave surface beneath. Viewed from the under side, the tail resembles a feather. Its use will appear later.

When the squirrel is at rest or running, the skin which forms his parachute, by its own elasticity, draws in folds to the animal's flanks, where it is out of the way and out of sight; but when he has occasion to pass from one tree to another and does not wish to descend to the ground, he leaps boldly into space, stretching out his little legs in the same act. The flaps, which were so neatly tucked away, then do excellent service as wings and he skims away like a swallow. He does not fly, in any sense of the word. On leaving the limb he takes a direction obliquely toward the ground, which position, with the front part of the body lower than the back part, he maintains throughout his course. Once in the air his motion is simply the result of gravitation, modified by the law of resistance. Gravitation, the balance wheel of the universe, would draw him straight to the earth, but there is another law of nature which says that he must move in the direction of the least resistance. When Dame Nature was making the squirrels she thought of this particular combination of her laws and made one species expressly to take advantage of it. The broad bands of skin along the sides of the animal encounter much air, which offers much resistance to its straight downward motion; but moving obliquely downward and forward with its body tilted in the same direction, it encounters relatively little air, consequently this must be the direction of its course. Here we see the use of his tail. By it and his head he is able to assume the proper tilt for the required distance. The lower his head the shorter and swifter will be his flight. Of course it will be seen that the distance of his flight depends on the height of his starting point and the angle of his descent. He must always descend, for gravitation, which is the only motive power, can act only in that direction. Before he alights he gives an upward swoop, in order to lessen his speed and consequently the shock. He does this just in the same way that a sled, after sliding swiftly down a hill runs partly up the next.

I never saw a flying squirrel abroad in daylight of its own accord, and when driven out, they hasten to some dark retreat; but when the shades of night have fallen they come forth by families, for they are a sociable people, and engage in such sports as you might imagine ordinary squirrels further endowed with the power of flight might carry on. Their food consists largely of nuts and insects, preference given to the latter. When a boy I frequently caught them in traps set for other animals, and baited with meat. I remember one time I had set a box trap for a skunk, and on visiting the trap next morning, I found the lid down. I raised it rather incautiously to investigate, when out came a little brown flash. It paused a moment to reconnoiter, but not seeing any welcome tree convenient it did the next best thing; it ran up me, in spite of my frantic remonstrance. When it reached my shoulder it paused not a moment, but giving me a vigorous spurn, leaped toward a giant oak, up which it ran and then sailed away several hundred feet, doubtless chuckling over its escape, although at no time had it been in peril.

D. S. Boucher.

HOW GROUSE TAKE WATER.

I have been much interested in the discussion as to whether ruffed grouse drink water in the same manner as the domestic fowl, and until recently was of the opinion thev did not, as I have watched their habits closely in Maine, Massachusetts and Minnesota, and never saw a grouse drink, though they will pick drops of water from twigs and grass. At the Sportsmen's Show, in Boston, I was watching a male grouse, standing on a log, with ruff extended, wings dropped and tail partly spread, as though about to drum, when another grouse came out of the brush in the pen and drank water from a tin pan exactly as a hen would do it. This may be a result of domestication, as I have noticed that many birds and animals change their habits under different conditions.

We have been feeding the squirrels about our house for more than a year, and have 2 red and 7 grey squirrels that come regularly for peanuts. The cats hunt these squirrels continually and have caught several. Yesterday morning I noticed a strange squirrel in company with one of our old pets, whose mate was killed by a cat last fall. The new squirrel looks thin and acts hungry, but does not know what a peanut is for. It will examine the one being eaten by its companion, and then hunt around with it until it finds a nut; but it will not eat a peanut, though it will take a walnut at once.

C. G. Brackett, Boston, Mass.

Mr. E. T. Seton, in his book, "Wild Animals I Have Known," page 312, story of Redruff. says: "Then came the drink, the purest of living water, although silly men had called it Mud creek. At first the little fellows didn't know how to drink, but they copied their mother, and soon learned to drink like her, and give thanks after every sip." The illustration at the top of the page shows the young grouse standing along the bank of the creek, drinking. Assuredly, Mr. Seton would scarcely assert such a thing if he did not have good ground to base his claims on.

David S. Wegg, Jr., Chicago, Ill.

If you will read, in November RECREATION, 1901, the article by Mr. A. F. Rice, which started this discussion in regard to the manner in which grouse take water, you will note that he says a certain author admits, "I have never seen grouse drink." That author was Mr. E. T. Seton.—EDITOR.

Being interested in the discussion going on in RECREATION about grouse drinking, I took pains to watch the ruffed grouse at the Boston Sportsmen's Show, March 8. One of the grouse stepped into the pan of water provided, dipped its bill in, and then raised its head between sips, exactly as a hen does in drinking. No doubt many others have noticed the same thing, as the enclosure contained a number of these birds. H. P. Libby, Eliot, Maine.

While at the Sportsmen's Show in Boston, February 22d, I stopped a few minutes in front of the enclosure containing a number of ruffed grouse. One of the birds hopped on the edge of a pan containing water and drank copiously. It seemed such a natural thing to do that I should not consider it worth recording had I not noticed the discussion regarding the matter in RECREATION.

Wm. L. Skinner, West Cambridge, Mass.

COON CHATTER.

I have hunted coons 20 years, and am not tired of the sport yet, although coons are scarce here. I see in RECREATION letters about the noise a coon makes. I do not believe coons have any call. When a coon wants company he comes down from his bed tree and hustles off to find friends. I have a tame coon in a cage close to the house, and have never heard him make a noise except to growl at me when he is eating. I have had him 2 years. He is large, with a beautiful coat of fur. I have 4 hounds with which I hunt coons. One old one is the finest tree dog I ever went in the woods with. I have hunted with all kinds of dogs, but with long experience I will take the hound, and the finer blooded he is the better he suits me. I like a hound because he can work a trail after the coon has been gone a long time. Coons are scarce, and I like to give them a chance for their life. I go to hear the chase more than to get the game. I have a tent and go on a camping trip one week each fall. Last year we went to Slaughter Neck, 25 miles from here. I should like to correspond with anyone interested in coon hunting and anyone having pedigree fox or deer hounds for sale. Should also like to hear direct from the Baltimore man who saw the coon eat the bird eggs.

W. L. Barnes, Seaford, Del.

I have read with interest the articles which have appeared in RECREATION from time to time, in regard to coons barking or making calls. For more than 20 years I have hunted coons and have yet to hear one bark or make any noise except when worried by dogs. As I usually hunt alone I should be likely to hear any such noise if any were made. I have also kept a number of pet coons. Have never heard them make any sound, except during the mating season. I own some fine coon dogs and

should be pleased to correspond with other coon hunters who are readers of RECREATION.

H. J. Klotzbach, Girard, Iowa.

I notice an article in RECREATION written by F. W. Allard, Atlanta, Georgia, who says coons make no noise. He is mistaken. They make a noise similar to that of the red owl, but a great deal louder. On a still evening they can be heard a mile at least. I have heard raccoons in captivity chattering. When in a fight they make a noise much like that made by a shepherd dog. I have a coon in captivity at present, caught March 9, 1902. March 11th, at 8 o'clock, he made the noise described above. I was an ear witness, and there were others.

S. R. Covert, Fayette, N. Y.

I have read with interest in your valuable magazine the article by M. H. Douglas on coon chatter. I agree with him fully. I have a friend who has 2 pet coons that chatter and screech a great deal, but I have recently been told by an old hunter that a coon never screeches or chatters unless interfered with by some other animal.

I have been a regular reader of RECREATION more than 2 years and would not miss a copy for 5 times the cost.

Herbert S. Berry, Saco, Maine.

GREY SQUIRRELS SHOULD HAVE THEIR CORN.

I saw in January RECREATION 2 articles by you about protecting grey and fox squirrels. If you lived where they were thick and on a farm you would perhaps change your mind. Here in Southern Minnesota squirrels are numerous, and are not in the thick timber, but in groves of one to 10 acres in extent and are generally near farm buildings. That is why the farmers in this part of the country want the squirrels killed. A squirrel will go to a farmer's corn crib, take an ear of corn in his mouth, run off with it and hide it, then come back after more, and keep on until he has a bushel or more stored away. Where there are many squirrels it counts up fast, and means something to the farmer, especially when corn is 50 cents a bushel, as it was this year.

I buy RECREATION every month at the news stand and like it very much. We have a few game hogs here, the kind that kill 25 or 30 rabbits and give half of them to their cats and dogs. I have seen that done more than once.

F. E. Williams, Spring Valley, Minn.

I am sure you have been misinformed about the work of squirrels. I was born and raised on a farm in the West, and have been among squirrels more or less all my life. I have lived in different sections of the country at different times, where they were abundant, and have studied their habits closely. I haye never yet seen a grey squirrel carry away an ear of corn, nor have I ever heard of it before. I have often known the grey squirrel to go into a corn field and make a meal of an ear of corn. It is possible he may carry away a few kernels and deposit them in his den in some tree, but a whole ear of corn? I doubt it seriously. Has any other reader of RECREATION ever seen a squirrel carry away an ear of corn? Mr. Williams says the squirrel keeps on carrying ears of corn until he has a bushel or more stored away. This is simply absurd. I have investigated many squirrels' winter *cache* and have never yet found one that contained a quart of food. All species of squirrels hibernate more or less through the winter and do little eating. They are not such gluttons as to store 10 or 20 times as much food for the winter as they can eat within that time. —EDITOR.

WRENS FIGHT SPARROWS.

In looking over the natural history department of February RECREATION, I noticed an article about the sparrow not being the only feathered fighter. Last summer I made a bird house out of a starch box and nailed it to a tree near our woodshed. A wren soon came and built in it, and I could watch the bird from the window in the shed. Of course the sparrows tried to drive the wren out, but the wren is able to handle sparrows. When the wren went away the sparrows went to the house and started to pull the sticks out. The wren soon found a way to stop this, which was to put a lot of sticks squarely across the doorway until the hole was too small for the sparrows to get in. Then if the sparrows tried to pull these sticks out the ends caught on either side of the doorway and held them in.

One day the wren was in the house, fixing some hair in the nest, and some sparrows came along, bent on mischief. The wren waited until one of the sparrows perched on the shelf just outside the door. Then the wren flew suddenly out, right in that sparrow's face, and sent him rolling to the ground. The wren was not content with that, and chased the sparrow about a block, pecking him hard all the way.

Another time a woodpecker lit above the house and started pecking. The wren came out and scolded awhile. Then its mate came, and they made the woodpecker fly off in a hurry.

Bluejays also chase sparrows. There is a water pan for our dog out in our front

yard, and this is a favorite bathing place for the birds. The bluejays always chase the sparrows away when they happen to meet there.

The sparrow is not so much of a fighter but rather depends on the number in the bunch than on individual fighting powers.

Charles S. Pope, Moline, Ill.

NATURAL HISTORY NOTES.

In February RECREATION I saw an article from W. C. Buell, Troy, N. Y., in regard to the killing of a ruffed grouse by flying against telegraph wires. Last fall 3 of us were returning from a hunting trip in Indian Territory. It was past camping time and there being no more suitable place in sight, we pulled up alongside of a stone fence on one side and a 3-wire fence on the opposite. While part of us were eating supper we heard the wire behind us twang. Something had struck forcibly. Running quickly over to where the wire was still vibrating we discovered one dead quail and heard one flopping in the grass, but before we could locate it we heard it fly away, being only stunned. Some of the boys who had gone out after wood were returning and had cut across the pasture, scaring up some birds. It being dark and the birds frightened, they had struck the wire fence, in their flight.

All true sportsmen should lend their efforts toward the protection of game, and I know of no better way to make the start than to join the L. A. S. I have killed more than the limit in a day's shooting, but not since I began reading RECREATION. Thanks to Coquina and the good work he is doing! May more see they're wrong and stop before it is too late and the game is no more except in history.

C. M. Tissue, Partridge, Kan.

I have a cement aquarium in my yard and should like to know what will keep the water in it from getting green.

W. M. Haynes, Austin, Ohio.

ANSWER.

The green of which you complain is due to the growth of unicellular algæ, or small microscopic plants, which multiply rapidly. It is easy for them to be introduced into the aquarium along with the larger plants which are put in intentionally. To keep out these algæ, first clean the aquarium thoroughly, then, when putting in the desired water plants, wash them carefully by gently drawing them through water, in another receptacle, of course, so that any adhering algæ may be washed off. Even then it may be necessary to wash the walls of the aquarium occasionally.—EDITOR.

Do crows smell powder? I have not killed many crows, but have lived in a part of the country where they are plentiful, and have been a close observer of their cunning nature. I have heard several discussions as to whether crows smell powder, and have decided to ask readers of RECREATION. A friend and I, while out in the woods one day, saw a flock of perhaps 200 crows, which we could approach within 10 feet. I did not have my gun, but got it in short order. When I came within gunshot of them they commenced making a fearful noise and took flight rapidly. A person might think they smelled the powder, but I thought my stealthy approach alarmed them. Should like opinions on this subject.

R. Armstrong, Chatham, Ont.

I killed some ducks on a small lake near here last week and should like to know what kind they were. The drakes had 2 small black tail feathers about 6 inches long. The ducks did not have long tail feathers. The feet were black on the back and blue on the front side. The drakes had black breasts, with white ring around the neck, white on top of the head and the under part of drakes was white. The females were about the same color but were duller. They had flat bills and were not large, weighing about 2 pounds apiece.

Sayer Rockwell, West Burlington, Pa.

ANSWER.

These birds are old squaws, or long tailed ducks, *Harelda hyemalis. Linn.*

Should like to hear from some reader of RECREATION who can give me any information in regard to the raising and handling of frogs.

George S. Overdear, Fort Wayne, Ind.

ANSWER.

Not long ago the U. S. Fish Commission issued a pamphlet on "The edible frogs of the United States and their artificial propagation." This pamphlet is No. 348, and you can doubtless obtain a copy by addressing a request to Hon. Geo. M. Bowers, Commissioner of Fish and Fisheries, Washington, D. C.—EDITOR.

In March RECREATION I saw an article by W. O. Isaacson about 2 white squirrels. Not long ago a white chipmunk stayed here. It had its nest under a railroad bridge. It was seen several times, but it has not been seen lately.

L. T. Meminger, Spruce Hill, Pa.

Will some reader of RECREATION tell me how the little spotted ground squirrel digs his hole without showing any fresh dirt around the mouth of the hole?

Geo. E. Blackford, Algona, Iowa.

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There are thousands of men in the United States who should be life members. Why don't they join? Will someone please take a club and wake them up?

A NEW CHAPTER.

Another evidence of the value of energy comes from far-off Kingfisher, Oklahoma. Some weeks ago Mr. F. D. Dakin, a live sportsman of that town, made up his mind to organize a chapter of the League there. He went out, rounded up the boys, sent in 32 applications for membership, with check to cover, and the chapter was promptly organized. Now the country is being patrolled day and night by the members of the chapter and the first man who kills a bird or catches a fish out of season in that vicinity will find himself in trouble. The members of the Kingfisher chapter are in dead earnest in this matter, and it is safe to say there will be no more illegal shooting or fishing or shipping of game in that country from this day.

Here is a list of the members of the Kingfisher chapter:

F. D. Dakin, G. A. Nelson, R. J. Kester, J. S. Patrick, P. Houck, R. D. Hunt, G. Longandyke, G. H. Hart, A. C. Ambrose (rear warden), C. E. McKinley, E. G. Spillman, J. C. Cross, G. W. Mitchell, H. C. Rising, David Jackson, S. D. Calhoun, H. C. Wilson, H. Humphreys, H. E. Moore, V. A. Brennan, C. P. Wickmiller, A. J. Harris, R. O. Copeland, J. Q. Hart, Geo. James, J. A. Banker, J. L. Admire, Jos. Kauffman, Hy. Simpson, Wilbur Shidaker, J. V. Admire, H. W. Thies. If there are any other sportsmen anywhere who wish to save their game and game fishes from destruction, let them follow the example of the Kingfisher crowd.

BAGGED GAME LAW VIOLATORS.

A short time ago Game Warden Quimby received information that parties from Oregon City were hunting deer with hounds on the headwaters of the Clackamas. A week ago he sent Special Deputy Warden J. J. Kelly to look into the matter. Mr. Kelly made a 75-mile trip on horseback to near the upper hatchery, where he found the hunters' camp, and waited there till they came from the day's hunting, with 3 dead deer and a pack of hounds. There was also one deer in camp when he got there. He confiscated the carcasses, arrested John Howland and Seth Austin, and arrived at Oregon City with them Friday. They were arraigned in the Justice Court, pleaded guilty, and were fined $25 each. The poor deer are naturally lean at this time of year, but men out trapping kill them, dry part of the flesh, and use some to bait their traps. Austin is an old offender in this line. The arrest of these men will serve as a warning to all of that kind to stop their violations of the game law, as there is always some timber cruiser or party of surveyors in the mountains who will inform on them. —Portland Oregonian.

Mr. L. P. Q. Quimby is the chief warden of the Oregon division of the L. A. S. More power to his elbow.

LEAGUE NOTES.

Boone, Iowa.—George A. Lincoln, of Cedar Rapids, State Game Warden, has been sojourning in this section of the State, much to the sorrow of certain violators of the game laws. A firm at Pilot Mound, charged with the illegal marketing of game birds, were arrested and tried before a justice of the peace. They were found guilty and fined $151.50, including costs. They paid the bill, and it is presumed they will henceforth have greater respect for the majesty of the law.

From Pilot Mound Mr. Lincoln went to Somers, in Calhoun county, where a dealer was fined $76.50 for shipping game birds out of the State. He, also, liquidated.—Iowa paper.

Mr. Lincoln is a member of the League and this is the kind of stuff that all good League members are made of.—Editor.

Ducks are plentiful in many localities near Seattle. They swim around the overflowed fields, gazing at our L. A. S. reward posters. They seem to know they are protected. The close season on ducks begins March 1st. Not a shot is fired at them. And The League Did It.

Frank A. Pontius, Seattle, Wash.

The Hon. Wm. Sulzer, Member of Congress from New York City, has joined the League. We are steadily gaining ground in the councils of the nation, and I trust the day may not be far distant when a majority of the members of both Houses of Congress will belong to the League.

Mr. E. F. Smith, a League member, of Hinton, W. Va., acting under the Lacey law, seized 14 lots of game in December last that had been delivered to the express company for shipment out of the State in violation of law. The offenders are being prosecuted.

LONGING LOO.

ZEB YAHOO.

A man there was in Kalamazoo
Who longed for a land where there's nothing to do;
Where the sun shines every day in the year
Where music's the only thing you hear;

Where giants and monsters and googoos dwell,
Where fairies flit and Zulus yell;
A bungaloo of real bamboo
In the jungles wild of Timbuctoo.

He wanted to play with a real hoodoo,
To ride a mile on a wild gozoo
With a yellow girl he would call "Loo-loo,"
Who'd sing to him of the great Ya-boo.

So they took him to ride on a wild choo-choo
With a pack of wolves from the New York Zoo;
But they didn't take along Loo-loo,
And the man he wept, "Boo-hoo, boo-hoo!"

FORESTRY.

EDITED BY DR B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes thirty years to grow a tree and thirty minutes to cut it down and destroy it.

FORESTRY AND THE NEW YORK STATE CONSTITUTION.

An attempt was made this winter in the Legislature of the State of New York to pass a resolution bringing before the people for vote a partial repeal of Article VII of the State constitution. .

It failed, undoubtedly through the strong opposition of influential men represented in the Association for the Protection of the Adirondacks, and in the New York Board of Trade, both of which bodies made a short, but determined campaign against the attempts to change the constitution in this particular.

Article VII reads: "The lands of the State constituting the forest preserve now fixed by law shall be forever kept as wild lands. They shall not be leased, sold or exchanged, or be taken by any corporation, public or private, nor shall the timber thereon be sold or removed or destroyed."

The resolutions on which the people were to be asked to vote provided for the leasing of camp sites, and for the sale and removal of softwood timber, 10 inches and more in diameter, and the building of roads, all under Legislative control; or, as the resolution in the Assembly expresses it, "the constitution shall not be construed to forbid the cutting of timber according to a system of scientific forestry."

Now, since by the failure of these resolutions the matter is again removed from the arena of politics to that of academic discussion, it will be possible, without charge of a desire to influence legislation one way or the other, to review the situation and try to sound the logical elements in it.

The arguments against change advanced by the Board of Trade in the memorial of its Committee on Forestry, are based on 3 propositions, namely:

Distrust in the ability of the Forest Commission and the Legislature to control proper cutting of timber.

The importance of the forest cover for the protection of the watershed, which makes all cutting of timber undesirable.

The impropriety of leasing camp sites by which the public at large is kept out from enjoying this public property.

The Association for the Protection of the Adirondacks, mainly composed of owners of camps or game preserves in the Adirondacks, or of members of clubs owning such, add in their appeal for assistance in staving off proceedings the following arguments:

That the restriction to 10 inches is not adequate, and that removal of the spruce to that diameter would impair the protective function of the forest cover.

That the culling of spruce would make much débris and thereby increase the danger from fire.

They also harp on the impairment of water supplies and increased danger from floods by denudation of the forest cover.

Finally, and in particular, they bring forward the argument:

That lumbering in the Forest Preserve would be a violation of good faith with those who have sold to the State lands adjoining their own in the expectation that the constitutional prohibition of the removal of timber will be maintained and, therefore, that their own property will not be jeopardized by logging operations, with the attending danger from fire.

Let us look at the situation as it is at present, and then at the arguments, separately, against a change.

We are neither in sympathy with the article of the constitution which prevents the State from a rational use of its property, excluding even its improvement by forest planting or otherwise; nor with the proposed changes which attempt to remedy this anomalous condition by one sided, half hearted, crude and ill advised measures, instead of proposing a well digested, comprehensive plan for the management of this important State property.

The State now owns over 1¼ million acres of forest land, and it is the expressed policy to add gradually to it until 3 million acres, more or less, shall be in the preserve. By the constitutional provision, the people have voluntarily deprived themselves of using this vast property for anything but sporting purposes, and as a soil cover to protect the water supply. Not only may none of the valuable materials grown in these woods be utilized, but they may not even be improved by weeding or cleaning up; nor, if the constitution is strictly interpreted, would it be permissible to plant and regain for useful production to forest any waste or burnt places; for these woods are to be kept as wild lands.

Any European who is acquainted with the forest management in his country, who knows that every forest growth should be treated like a crop, harvested and repro-

duced, and that no danger to the watershed need be feared where this is done properly and persistently, would smile at the folly exhibited by a people reputed to be of a practical turn of mind, in preventing such rational forestry practice.

Any rational, thinking man, not a sportsman or pleasure seeker, visiting this region and studying its conditions, will not hesitate long in deciding on the proper economics in the management of this property.

Theoretically, at least, he will have to admit that more enjoyment for a larger number, more benefit to the community, present and future, can be derived from it by using it as European forest properties are being used, than by the *let-alone* policy. Practically, however, he may admit that the methods of utilization now proposed by the Legislature and the manner of administration to be practiced do not lead in that direction.

Leaving out of consideration the question of leasing camp sites, which, under certain conditions, might be done with advantage and without detriment, let us see what the removal of the spruce to 10-inch diameter means. It means making an inroad on the valuable assets stored in this State property. It is a financial policy, only; not a policy to preserve or improve or reproduce the forest property; not a comprehensive forest policy. It says: Let us take out what we can profitably sell, using the funds for any other desirable or undesirable purpose, leaving the property by so much poorer, by so much more difficult for the future forestry management to restore to desirable condition.

For a private owner, who is mainly concerned in his present financial condition; for a State which is in financial distress and in need of funds immediately available, such a policy may be quite rational. For a great State, rich in resources and strong financially, it is not commendable.

The State of New York can afford to begin a forest management on a broader basis, which looks at the interest of the future even more than of the present. Forest management, carried on for continuity, always involves foregoing present advantages or incurring present expenditures, making present investments for the sake of future advantages, future incomes, future returns of investments; in other words, it must make sacrifices for the present, more or less, to be made good in a distant future. That is the reason why the State is to engage in such management; it has the obligation to provide for the future as well as the present; it is long-lived enough to secure the benefits resulting from abstemiousness and economy, or from present investments.

The proper policy for a virgin forest, to be managed for future benefits, is to remove it more or less rapidly and replace it by some better crop, which will protect the soil better and furnish a superior amount of useful wood material. The rapidity with which this change from the ragged and unprofitable forest of nature to the economic forest of man is to be made and the methods to be employed depend on financial, economic and natural conditions. In any case, it is a process of slow and gradual evolution, during which the interests of the present must also be taken into account.

Such a management requires a careful, far sighted plan before it is put into execution, and a fit and well organized administration.

We must agree with the first argument of the Board of Trade, supported by a statement of experiences, which expresses at length doubt of the ability of a commission of political appointees without technical training to supervise efficiently a technical management which contemplates continuity of plan and performance. As regards the doubtful expedient of hampering the administrative body by legislative control in such management, the memorial wisely says:

"No man, by his election as a member of the Legislature, is thereby endowed with any greater wisdom than he possessed as private citizen. The question arises, therefore, is it safe, in the present condition of knowledge on the forest question, to confide the care of the forests to the Legislature, as is to be done under the pending amendments?"

A change of method in administration, then, would seem to be required before a change in the use of the Forest Preserve can appear desirable.

The State can wait for enlightenment, and the time, no doubt, will arrive when a technical forest management such as we are acquainted with in all European countries, Japan and India may be organized.

Regarding the arguments which refer to the influence of forest cover on soil and water conditions, and the supposition that the removal of the spruce would be a damage from that point of view, we can not agree that in most cases such culling would be detrimental directly. There is altogether too much loose talk and generalization on this subject of forest influences.

If the lumberman really denuded the steep mountain slopes, and if the soil on such slopes were really exposed to sun, wind and rain for some time without re-

covering itself with vegetation, the results might indeed be disastrous. But these conditions are rare.

Indirectly, however, they may be induced by the fires which are so likely to follow the lumberman. These destroy the forest floor, which is the most essential factor in the problem of water conservation, and, if recurring, prevent the reëstablishment of a vegetable cover; soil washes begin and accumulate, and finally absolute denudation and its evil consequences are the result.

The main argument, then, against lumbering of any kind is not rationally because of the cutting and utilizing of the wood materials, but because of the leaving of débris and the increased danger of fire, the one being supposed to be a necessary concomitant of the other.

If this danger could be avoided—and it really can be at least minimized—there would in most cases be no objection to the harvesting of the merchantable trees from consideration of the needs of water protection. Without change in the methods of logging and in the manner of administering protection against forest fires, we agree that it is practically best to defer logging on State lands until these changes and this protection can be assured, and until a comprehensive plan, including the whole State property, in its scope on the lines indicated, can be proposed.

When that time shall arrive, when a rational forest management is to be inaugurated, the sixth reason, which appears rather specious, namely, that the State is impliedly under obligation to keep its property for ever in a wild state to please adjoiners, will probably not even be raised.

TREE PLANTING IN THE ARID REGIONS.

Port Arthur, Texas.

Editor RECREATION:

After a perusal of the article by Mr. Geo. E. Walsh, reprinted from *Harper's Weekly* in February RECREATION, I feel constrained to add my mite to the discussion by saying a few words touching "Trees for the Prairies." I lived for 12 years in Southwest Kansas, and the efforts made by the settlers to grow forest trees under the timber culture laws then in force showed how futile any further experimentation along those lines is likely to prove, even though conducted by skilled arboriculturists in scientific ways. That the efforts of the settlers were in most instances made in good faith, carried on through years of disappointing toil, is beyond question. That they failed in every instance to grow trees of any size is equally patent. After giving the matter some thought, I arrived at the conclusion that the main trouble lay in the fact that no attempt was ever made to grow trees in the places that were most likely to make the effort successful. Throughout that country there are thousands of acres, as Mr. Walsh says, among the sand hills that are absolutely worthless. If tree culture could be made to succeed at all, and I believe it could if attempted on a large enough scale, it would be in those regions. The principal drawback is the lack of sufficient moisture. By planting the trees in the valleys that lie between these hills every inch of rainfall on the level will be augmented 10 to 12 inches by the wash from the hillsides. After the ground has been broken by the plow, even so great an amount of moisture as this will be absorbed in a few hours, to be drawn on for weeks and months by the growing trees. With these nuclei the forest could be made to climb the hillsides gradually and creep out on the level plains themselves; and by holding and conserving the moisture, bring about such conditions as would increase the rainfall and drive the arid region back to the foothills of the Rockies. If the government will profit by the mistakes made by the settlers and try tree culture where 30 to 40 inches of water can be counted on every year as a helper I see no reason why success should not crown its efforts. To plant trees, of any variety, elsewhere will be a waste of time and labor.

Once the trees are started in the valleys, and they should be planted thickly, they would catch and hold the snows of winter as well as the rains of spring and summer. I had a garden in one of these valleys with a solid board fence on the North. I have seen the snow drifted in until the garden was filled to the height of the fence, and if it had been 12 feet high the drifted snow would have been of that depth. I have not infrequently seen the water standing a foot deep in that garden from a rain that could not have exceeded one inch on the level, and the valley was like many others in that locality.

One of the principal reasons why timber culture has always failed in the plains country is that there is no moisture in the subsoil. It is bone dry from the surface clear down to the water-bearing strata, one foot to 200 feet below the surface, and in many places much more. It is this lack of sub-surface moisture that brings death to trees that attain any size. While the trees are small and the roots are confined to the surface, the ordinary rainfall will be ample to keep the little tree living; but as soon as it becomes a tree, and attempts to draw from a greater depth for its moisture, it succumbs to starvation.

C. M. Davis.

PURE AND IMPURE FOODS.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH.D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

TOMATO CATSUP AND OTHER SAUCES.

A. L. Winton and A. W. Ogden have recently studied the catsup and other similar sauces sold in Connecticut. They discuss the manufacture of such goods in effect as follows, calling attention especially to the use of artificial coloring matter and preservation which are so generally met with and which should be discouraged:

Tomato catsup, or ketchup, is the most popular of the bottled table sauces on our market. It is found on the tables of nearly every hotel and restaurant, and is consumed in large quantities in families. When made in the household ripe tomatoes are pared, cored, boiled down to the desired consistency, and strained through a sieve to remove seeds. The strained pulp is cooked for a time with vinegar, spices, and other flavoring matter. Chili sauce is prepared in a similar manner from tomatoes, peppers (chilies), vinegar, spices, etc., but, unlike catsup, is not usually strained.

Both of these sauces are bottled hot and closed to exclude the germs; but while the sterilization or the sealing is not always perfect, the contents of the bottles are kept from spoiling, during storage as well as during use, by virtue of the spices and vinegar.

Commercial catsup, chili sauce, etc., are at least theoretically similar to the home-made products. Some of the catsups and chili sauces on the market are made from good materials, but others are said to be made from the refuse of tomato canneries or from other inferior pulp, and most of them are colored with dyes and preserved with chemicals. Among the colors used are eosin, ponceau, tropeolin, magenta and others of coal-tar origin. They impart to the sauces a brilliant red color which those who are unaware that the uncolored products have a dull red or brown color believe is due to the natural color of the fruit. The objections to the use of these dyes are: First, they deceive the purchasers while they in no way improve the quality of the sauce; second, they may serve to hide inferior material used in their manufacture; third, they are possibly injurious to health; and, fourth, they put genuine uncolored goods at a disadvantage in the market.

The chemicals commonly employed as preservatives are salicylic acid, salicylate of soda, benzoic acid and benzoate of soda. The preserving agent actually present in the product is the same, whether one of these acids or its soda salt is used, since the free acid of the tomato liberates the acid of both the salicylate and the benzoate of soda. The use of any of these preservatives in catsups and sauces without informing the purchaser of its presence is a violation of the Connecticut and some other State pure food laws.

During the present year 106 samples of catsup, chili sauce and other sauces sold in Connecticut were tested for both dyes and chemical preservatives, and in addition determinations of total solids and acidity were made. Of these only 21 contained no added preservatives. Of the 95 samples with added preservatives, 67 contained benzoic acid, probably added in most cases as sodium benzoate, and 18 contained salicylic acid. The tests showed that only 20 brands were free from added dyes, and that 85 brands contained them. Of these latter goods 31 brands were colored with eosin, the common dye of red ink; 47 with ponceau, 3 with tropeolin, and 3 with other coal-tar dyes. The percentage of total solids, that is, food material, in the tomato catsups ranged from 6.03 to 42.64. The water ranged from 57.36 to 93.97 per cent. The acidity of the samples, that is, one of the most marked flavors, ranged from 0.60 to 2.20 per cent. Otherwise expressed, some of the samples were 7 times as concentrated and nearly 4 times as sour as others.

In the chili sauces, the total solids ranged from 12.02 to 37.36 per cent., and the acidity from 0.80 to 1.60 per cent.

MARKETING MUSKMELONS.

Western muskmelons are sold in large numbers in the Eastern market. They are well graded and uniform in quality, and these points of excellence have greatly assisted their popularity. Nearness to market is an important factor in the case of a tender-fleshed, delicately favored fruit like the muskmelon, and for this reason within a few years, a melon industry of considerable magnitude has been developed in Niagara county, New York. As a rule, the cultivation of the fruit has been restricted to the market-gardening regions adjacent to the large cities. The industry has developed naturally owing to favorable soil and climatic conditions. The soil ranges from light sandy loam on the "ridge" to clay loam on the lower levels. The light soil produces early melons of fine quality, to secure which special means are employed.

For the early crop the plants are started in hothouses and transplanted to the field, being carefully cultivated and protected from insect enemies and fungous diseases. The chief advantage of the house-grown plant lies in the increased earliness of the product. Sometimes there is little difference in the time of the maturity of the first fruits, but the main crop from set plants, it is claimed, is always considerably in advance of that from seed sown in the open.

According to Professor Craig, of the Cornell University Experiment Station, who has devoted much time to a study of the industry, to know just when to pick a muskmelon is a matter of judgment acquired by practical experience. Each variety has its characteristic coloring when ripe. The stem end of the fruit colors and softens first, and the melon must be picked before it has softened at this critical point.

It is as important to grade melons as peaches or apples, and no progressive fruit grower now thinks of marketing such fruits without grading them. Grading melons according to size has a distinct advantage for the buyer, since it frequently happens that one consumer wishes a small size, while another prefers larger ones. The work of grading and packing is done best in the packing house, or in a shaded corner of the field.

In Western New York 3 types of packages are used for muskmelons, namely, 12-pound baskets, bushel baskets and crates. The 12-pound basket usually holds 16 melons, while the bushel basket and crate hold 30 to 45 melons each. A favorite crate measures 9x11x22 inches. Baskets are neat in appearance and easily handled, but are not suitable for shipment to distant markets. For long-distance shipment the crate is undoubtedly the best package, economy of space and ease of handling considered. In Western New York most of the product is shipped by canal boat. Small melons like Netted Gem pack nicely in 12-pound baskets, while the larger varieties are more conveniently handled in bushel baskets.

FOOD VALUE OF BUCKWHEAT.

The grain of buckwheat and its various by-products are used to a limited extent for feeding farm animals, as are also the green plant and the straw. Buckwheat flour and grits are used as human food. The plants are sometimes grown as bee-plants for the honey they furnish, the Japanese buckwheat being especially satisfactory for this purpose. The buckwheat grain has the following percentage composition: Water, 12.6; protein, 10; fat, 2.2; nitrogen free extract, 64.5; crude fiber, 8.7; and ash, 2. It contains rather more crude fiber and less nitrogen free extract than other common cereal grains.

The hulls are woody and have no value as food. Buckwheat flour is proportionally richer in nutrients than the whole seed, as the crude fiber is practically all removed in milling. Buckwheat flour is used largely in this country for making griddle cakes or pancakes, less commonly as breadstuff and in other ways. Much is used in the manufacture of pancake flour, which consists of a mixture of flour, salt, and baking powder, so that the cakes may be made by simply mixing the material with water or milk to a proper consistency.

In Russia buckwheat porridge is a common article of diet, being eaten in large quantities by the peasants in certain regions. Buckwheat flour is often adulterated with wheat middlings. Buckwheat has been used for brewing and for the manufacture of distilled liquors.

BREAD FRUIT.

Bread fruit is a common article of diet in the West Indian islands, Hawaii, and other tropical regions. According to a Hawaiian report it is similar to the banana as regards general chemical character. In the Sandwich islands the tree produces generally 2 crops of fruit, but the successive ripening periods are short and the fruit can not be kept after it ripens. When just ripe the fruit contains little sugar. If picked at that stage it has a fibrous texture suggesting lightness and resembles somewhat a loaf of wheat bread. The flavor is agreeable and characteristic, yet suggesting slightly that of old chestnuts. Before the fruit is fully ripe it is dry and flavorless. As it ripens the starch in it changes rapidly to sugar and a peach-like aroma is developed. The fragrance is unaccompanied by any corresponding flavor, and is wholly dissipated in cooking. The pulp of the fruit if cooked at this stage is soft and somewhat gummy, yet it is said that many persons prefer it at this stage on account of its pronounced sweetness. A Hawaiian chemist found that bread fruit pulp contained 68 per cent water, 1.03 per cent sugar, and 0.83 per cent ash, the chief ash constituents being chlorides and sulphates.

Attempts have been made in Jamaica to produce a bread fruit flour similar to that which is made by drying and grinding bananas. This may assume commercial importance in the future, though it is doubtful if it is made in any considerable quantity at the present time.

I have read your magazine ever since it was first published, and consider it the best sportsmen's journal published.

Geo. H. Reimers, New York.

PUBLISHER'S NOTES.

A NEW IDEA IN HAMMERS.

The Savage Arms Company, of Utica, N. Y., has just acquired the right to manufacture and sell the Magazine and Magnetic Tack Hammer, the invention of Mr. Arthur W. Savage, the inventor of the famous Savage repeating rifle. The Magnetic hammer is the best of the kind on the market, having a permanent horseshoe magnet, being strong and practical. The Magazine tack hammer is particularly intended to save the thumbs and fingers of the weaker sex, who often suffer, from lack of skill, in aiming the uncertain hammer. The new hammer is simple. All that is necessary is to pull the trigger with the forefinger and then release it. This places a tack from the magazine on the face of the magnet, which forms the striking face of the hammer, where it is held until it is driven by one or more blows. It readily enables anyone to tack up decorative material on the side of a room, on the ceiling, or in any other position which is generally considered difficult when using the ordinary tack hammer. The Magazine hammer requires only one hand to operate, thus leaving the other hand free for holding the material to be tacked.

The tacks can be placed in the magazine of the hammer either one at a time or with one movement of the loader which goes with each hammer. Everything is simple and in plain sight, and if once used the device is considered indispensable.

HUNTING SUITS THAT SUIT.

I have had H. J. Upthegrove & Son, Valparaiso, Ind., make me 2 suits of hunting clothing; one of moleskin and the other of heavy duck. I wore these clothes on a recent trip in the mountains and subjected them to hard service in mountain climbing, crawling through jungles of dead brush, through windfalls, wading snow 3 feet deep, etc. It is a pleasure to me to be able to say that the goods proved entirely satisfactory in every way, and I feel warranted in advising all sportsmen who want clothing of the right kind to order from Upthegrove. If you will write him he will send you measurement blanks which you can fill out, and to which he will work. It would be well, in all such cases, to have a tailor make the measurements, and any tailor who makes your everyday clothes, or your Sunday clothes, would be glad to do this for you, inasmuch as the hunting clothing would probably not be in his line. However, if this is not practicable, you can have a friend measure you, and Upthegrove will do the rest. You may be assured of fair and honorable treatment at his hands. When you write him, please say you saw his ad in RECREATION.

R. H. Ingersoll & Bro., whose main store is at 67 Cortlandt St., New York, have opened a branch house at 25 West 42d St., New York, where they will keep a full line of tennis and golf goods, boats, canoes, guns, rifles, revolvers, fishing tackle, cameras, photo supplies, baseball, gymnasium and track suits, etc. Their goods have become so well known to readers of RECREATION that it is only necessary to announce the opening of this new branch in order that all sportsmen who visit New York via the Grand Central station may know just where to get their goods handily.

Mr. W. H. More has just accepted a position with the Syracuse Arms Company, of Syracuse, N. Y., to act for them as their representative on the road. Mr. More was for 16 years connected with the H. & D. Folsom Arms Company of New York, and for 7 years was Manager of their New Orleans branch. He has, until within the last month, been special gun representative for Hibbard, Spencer, Bartlett & Co., of Chicago.

It is his intention to make a personal call on every handler of guns throughout the United States.

Noyan, Quebec.

Mr. Henry L. Jespersen, New York.

Dear Sir: I cordially recommend your goods to my brother sportsmen. You may ever count on me as one of your customers. Yours truly,

E. G. Fadden.

Chester, Vt.

Drs. Phillips and Wrean,
Penn Yan, N. Y.

Dear Sirs: The hares arrived safe and are beauties.

F. A. Davis.

The Sidle telescope rifle sight which you kindly gave me in return for 12 subscriptions to RECREATION is a source of delight to myself and my friends. I thank you for sending such a valuable premium.

Robert Hunter, Neepawa, Can.

I received the Ithaca gun as premium. It is a beauty and an excellent shooter. I have targeted with several sizes of shot and it shoots wonderfully. Thank you for your kindness.

R. M. Wissler,
Bellefontaine, O.

EDITOR'S CORNER.

PADDY IS OUT OF COURT.

Pretty much everyone who reads RECREATION, and a few who do not read it, know that the Marlin Arms Company brought a libel suit against me in the Superior Court some 2 years ago. I employed the Hon. John S. Wise and his son, H. A. Wise, to defend. They demurred to Marlin's petition on the ground that he had not stated facts sufficient to constitute a cause of action. Marlin's principal averment in his complaint was that I had written all the articles printed in RECREATION during the past 3 or 4 years, criticising Marlin rifles. He knew, as well as he knows he is living, that they were all written by the men whose names were signed to the letters, and that the original letters, as printed in RECREATION, are all on file in this office, ready to be produced in court at any time. Still, Paddy has no conscientious scruples against uttering a falsehood, or even against swearing to one.

The case was carried up to the Supreme Court of the State of New York, where it was argued there by counsel on both sides, and a decision has lately been handed down dismissing Paddy's complaint and saddling the costs in all the lower courts on him. I quote as follows from the opinion of the Appellate Division:

> Concededly there is no precedent in the courts of this State for the interference of equity in a case of this character. Hence it becomes necessary to examine the complaint in the light of the established principles for the purpose of ascertaining whether it states a cause of action.
>
> It should be noted, first, that this complaint contains no allegation of any statement made against the character or conduct of plaintiff. It has not been libeled. The words published in defendant's magazine, and for which defendant is responsible whether written by him or another, criticise the gun manufactured by plaintiff. They do not charge that plaintiff was guilty of any deceit in vending, or want of skill in manufacturing, the gun. Every statement published and of which complaint is made relates solely to the quality of plaintiff's rifles and their relative desirability as compared with rifles manufactured by others.
>
> The plaintiff's first excuse for invoking the aid of equity—to avoid a multiplicity of actions at law—is evidently not well founded, for plaintiff has not only failed to state facts sufficient to constitute one action at law, but it has affirmatively stated facts which show that it has not an action at law. In such a situation it goes without saying that a court of equity can not be invoked to aid a plaintiff unless some other ground for its interference be shown.
>
> The constitutional guaranty of freedom of speech and press, which in terms provides that "every citizen may freely speak, write and publish his sentiments on all subjects, being responsible for the abuse of that right; and no law shall be passed to restrain or abridge the liberty of speech or of the press" (State Constitution, Art. 1, Sec. 8), has for its only limitations the law of slander and libel. Hitherto freedom of speech and of the press could only be interfered with where the speaker or writer offended against the criminal law or where the words amounted to a slander or libel of a person or corporation or their property, and the guaranteed right of trial by jury entitled the parties accused of slander or libel to have 12 men pass upon the question of their liability to respond in damages therefor and to measure such damages. But the precedent which the plaintiff seeks to establish would open the door for a judge sitting in equity to establish a censorship not only over the past and present conduct of a publisher of a magazine or newspaper, but would authorize such judge by decree to lay down a chart for future guidance in so far as a plaintiff's property rights might seem to require, and, in case of the violation of the provisions of such a decree, the usual course and practice of equity would necessarily be invoked, which would authorize the court to determine whether such published articles were contrary to the prohibitions of the decree, and, if so found, punishment as for a contempt might follow. Thus a party could be punished for publishing an article which was not libelous and that, too, without a trial by jury.
>
> Our conclusion, from a review of the authorities, therefore, is, that all well-considered decisions agree in determining it to be the law that a court of equity has not jurisdiction to grant the relief to secure which this suit was drawn.
>
> The order of the Appellate Division should be reversed and the judgment of the Special Term affirmed, with costs in all courts.

Paddy, it's your next move.

A REAL GUIDE.

It is always a pleasure to recommend a good guide, and W. H. Wright, of Spokane, Wash., is one of that kind. He does not pose as a guide. He has business interests of his own that occupy a good deal of his time, yet he can frequently leave home for a month or 2, and in such cases he is willing to take parties out and show them where to find fish and game, or how to acquire health and strength. I recently made a trip with him in the mountains, and he proved a really great man on the trail. He is as strong as an ox and has a constitution like that of a grizzly bear. He will climb mountains, or chop trail, or pack a big load from daylight till dark. Then he is ready to make camp, to chop more wood, to cook a meal, to cut cedar boughs and make beds 2 feet deep; or to do anything that is necessary to make you comfortable. He can do more useful things in an hour than any man I ever knew in camp. He is a tip top cook, an all around mechanic, and so good a woodsman that you might drop him anywhere in any of the great forests of this country and he would find his way out without making a mistake.

Last summer he drove a 4 horse team for a tourist outfit from Ogden, Utah, to Portland, Oregon. In addition to this, he took care of all the horses, pitched the tents and made camp every night; did most of the cooking for 7 people; mended the wagon or harness whenever they broke down: went out and killed game or caught fish when needed for the table, and in fact was equal to any and every emergency that presented itself on that long journey.

Last winter Wright took an invalid to Mexico and gave him a long tour over the plains and through the mountains of Sonora and Chihuahua. On that trip he drove team and wrangled horses; he guided, cooked meals when necessary, and, in fact, was the all around manager, secretary-treasurer, packer, commissary-sergeant and chief cook of the outfit.

Any man who can get Wright to take him on a hunting or prospecting or health-seeking expedition is in big luck.

A MAGAZINE FOR GAME HOGS.

There are several editors of so-called sportsmen's journals who hang around the outskirts of the range and try to round up all the game hogs that have been branded by RECREATION. Here is the substance of a postal card sent out from the office of one of these publications:

Dear Sir:

Wrap a dime in this card, enclose it in an envelope, and mail it to us at our risk. We will send you a copy of the ——, the handsomest sportsman's magazine published. . . . There is no such word as "Game Hog" in our lexicon of sport. Do not delay. This is one of the good things which you should not miss.

The statement that the editor has "no such word as game hog" in his lexicon is purely a sop to the swine. If he had known anything of grammar he would have said, "There are no such words as game hog," etc., instead of "there is no such word"; but a man who invites game hogs to wallow in his yard can not be supposed to know much of the English language.

Here is a copy of a letter which a staunch friend of game protection wrote the aforesaid editor, on receipt of his postal card:

I have received your invitation to send a dime and get a copy of your journal in return. I see plenty of self praise in your prospectus, but not one line to indicate that your magazine is to be devoted to game protection. I also note the following: "There is no such word as 'game hog' in our lexicon of sport." You would better revise your lexicon at once. Mr. Shields, through RECREATION, has done more for game protection than all the other sportsmen's periodicals combined, consequently he has the respect and support of a host of men and women who place game protection before game destruction. I decline your invitation with thanks.

H. M. Beck, Wilkes-Barre, Pa.

NO PROPERTY RIGHT IN GAME.

The Supreme Court of the great State of California has recently handed down a decision which will prove of interest to many persons. It has long been held by many game dealers, hotel men and persons who do not hunt but who like to eat game, that any law which aims to prohibit the sale of game is unjust to those who do not hunt, is partial to hunters and may therefore be termed class legislation. This question has been adjudicated in the courts time and again, and the higher courts have always held that any State may, in the exercise of its police power, prohibit the sale of game within its borders, or the shipment thereof beyond the State limits. There is a section of the California game laws which says:

"Every person who buys, sells or offers or exposes for sale, barter or trade any quail [or certain other game] is guilty of a misdemeanor."

Several game dealers of San Francisco held that this law was unconstitutional. Therefore a test case was made of it and taken into the courts. In deciding this case,

the Supreme Court held that all game is really the property of the State; that sportsmen kill animals only by sufferance and that the Legislature in granting favors can make what qualifications may seem proper. It is stated that the prohibition in reference to the sale of game does not destroy a property right, because no such right exists.

NEWFOUNDLAND LICENSE LAW AMENDED.

The lawmakers of Newfoundland have amended the game law by imposing a license of $100 each on all non-residents who may see fit to hunt on that island. I am informed by a subscriber in St. Johns that this is purely the result of the swinishness displayed by many American hunters who have gone there in years past. It is well known that the old law provided for 3 classes of license: one costing $40 and allowing the hunter to kill 3 caribou; another costing $60 and authorizing the killing of 5 caribou; and still another at $80, under which the hunter might kill 8 caribou. Many of our American game hogs, however, went over there, took out the cheapest license and then killed 10 to 20, or 30, or even 50 caribou each. The intention of the Legislature in passing the present law was to keep such men off the island entirely, and there the action of the lawmakers will meet the hearty approval of hundreds of decent men. Few can afford to pay the present license, and some honest men who would like to go over there and kill 3 caribou must suffer because of the devilish greed of the other kind; but it was always thus. Honest men have, from time immemorial, been oppressed by laws that were only intended to restrain thieves and cut-throats. This is another instance of it.

Aenholt Stoick, Albert Paul, Henry Bohlman, John Kunde, Leopold Stoick and John Schlosser, farmers, living in Lac Qui Parle county, Minn., were arrested near Big Stone lake, in that State, in April last, with a seine and 3 sacks of fish in their possession. The sacks contained about 300 fish, among them being a number of black bass. Mr. A. E. Austin, game warden, of Montevideo, who made the arrest, lined the prisoners up in court, when they demanded a jury trial. This was accorded them, and the men swore they had not been seining; that they had found the 3 sacks of fish on the river bank, and that they had simply been spearing suckers. The story was altogether too fishy for the jury, and the defendants were all found guilty as charged. The court fined them $25 and costs each, the total amounting to $192. The money was paid into court and the prisoners were allowed to depart. The climate of Minnesota is exceedingly unhealthful for game and fish law violators.

The fish pirates about the Lewiston, Ohio, reservoir, were on the warpath again a few weeks ago. Messrs. Norvell and Trevison, Deputy State Game Wardens, raided and destroyed certain nets belonging to the pirates, and the next time the wardens appeared on the scene 8 shots were fired at them by men concealed in the brush about the reservoir. The officers were unable to get sight of the men so as to return the fire, but assert that in future they will be prepared for these law breakers, and if any more shooting is done they hope to have a hand in it. I trust the officers may succeed in getting a line on the lawbreakers, and that they may make good, quiet corpses of them.

Two years ago Charles Hoffman, of Alps, Rensselaer county, N. Y., violated a State game law by snaring 2 ruffed grouse and killing a rabbit in close season. The game warden got after him and Hoffman left the county. A month or 2 ago he turned up again supposing, of course, the complainant had forgotten all about the case; but not so. Officer Brown and Stephen Horton, representing the Rensselaer County Rod and Gun Club, swooped down on Hoffman, took him into court and a fine of $59.40 was imposed on him, which he paid. It would be well for Hoffman to remember that law keeps a long time in Alps.

A subscriber sends me a clipping from a Concord, N. H., paper, stating that Fred Higgins, Adelbert Smith and Jas. H. Durant, of North Sonbornton, assisted by 6 dogs, killed a doe near that town in March last. The men were arrested, taken before a justice and fined $100 each. My only regret is that the good people of North Sonbornton did not then take these men, horsewhip them soundly, and run them out of town. No game law ever enacted is sufficiently severe on a lot of brutes who will run down a deer and kill it in midwinter, simply because the poor brute gets so hungry as to come into a settlement to get food.

Frank Reszka and Frank Bruski, of Winona, Minn., have been in the habit of hunting in Wisconsin opposite Winona in close season. In March last Mr. Schultz, game warden of Wisconsin, went after

these 2 butchers, accompanied by Elwin Merlin, marshal of Trempeleau. The officers caught the 2 Polanders in their duck blind, took them into court, where a fine of $25 and 30 days in jail was assessed against Reszka and $20 and 20 days in jail against Bruski. This will give these men plenty of time to make up their minds whether it pays to violate the Wisconsin game laws, even if they do live in Minnesota.

George Tucker, of Brenham, Texas, writes a long story to a Western sportsman's journal in which he tells and, in fact, openly boasts that he and 5 friends killed 5 antelope in violation of the Texas law. The editor of the aforesaid journal prints the story without a word of condemnation or comment of any kind. That is the kind of stuff most editors of sportsmen's journals are looking for. All they seem to want in the way of entertainment for their readers is stories of killing, whether legal or illegal, whether sportsmanlike or whether the work of game pot.

Charles Ferber, of Scranton, Pa., went trout fishing in Wayne county, in April last, and made a good catch. On his way home a game warden held him up and sized up his fish. Eleven of these proved to be less than 6 inches in length, and the warden ran Ferber in. A local justice of the peace fined him $10 for each short, making a total of $110, which Ferber paid and went on his way, a sadder but wiser man. He would better have waited another year for those trout to grow.

Dick Rock, an old-time hunter and guide, who lived on the bank of Henry's lake, Idaho, was killed some time ago by one of his pet buffaloes. He had several buffaloes, moose, deer, etc., on his ranch and was very fond of them. Rock also contributed to the cause of game protection and propagation by catching and shipping to Eastern Zoological parks, good specimens of mountain sheep, moose, buffalo, etc. His loss is deeply felt by all who knew him.

I am informed that 30,600 deer skins were shipped from San Antonio, Tex., last winter. Yet, there are men in Texas who pretend to be sportsmen, and who, when asked to aid in any effective way in the procuring and enforcement of game laws, make all kinds of excuses. If the sportsmen of that State allow the slaughter to go on at the present rate, they will soon have nothing better than sparrows to shoot, and it will serve the alleged sportsmen right.

A man in Greenwood, Miss., advertises 3 deer dogs for sale, and states, as a reason for wishing to sell, "I have killed all the deer in my neighborhood." That is a case of a game hog and 3 hounds going into partnership to exterminate the game. Hunting, like politics, sometimes makes strange bed fellows.

A CROSSING OF THE DANUBE.

Some years ago I was one of a party seated around a camp fire in a Bavarian forest. Many stories, that would have taxed the credulity of any but sportsmen, had been told. When it came the turn of J., a veteran forester, he permitted his fancy to soar in this wise:

"I was hunting on the lower Danube in a forest belonging to the crown of Austria. My companion shot a bull elk. The animal plunged into the river, which is there about 2 miles wide, crossed and lay down on the other shore. There was no boat within miles of us, but we were loath to lose our game. While casting about for means of crossing we found a patch of wild cucumbers. All plant life had thriven wonderfully that year and the fall had been exceedingly dry. We were therefore not surprised to find that some of the cucumbers had reached a length of 6 or 7 feet. They were as dry as boards. Selecting the 2 largest we fashioned them into boats by cutting holes in the tops. Then we lashed them together and after tying 2 dry seeds to sticks, to serve as paddles, we crossed the river, my companion in one cucumber boat and I in the other.

"We found the elk apparently dead and having laid him across the boats, we started to return. The additional weight sank us dangerously low, but as the river was only 2 feet deep we kept on. When a few hundred yards from shore the elk, which had been merely stunned, recovered consciousness and kicked the boats to flinders. I would have taken a shot at him before he reached shore had I not been compelled to rescue my companion who could not swim."

"But," cried the listeners, "you said the water was only 2 feet deep."

"And that is quite true as regards its normal depth. But the carp in the Danube are in the habit of feeding on brewers' grains thrown into the river. That stimulating food often makes them so dizzy that they spin around violently until they wear holes in the bottom. Some of the holes are 10 feet deep and yards across. It was in one of the largest that my friend fell, so you can understand his danger."

Petaluma, Flatwillow, Mont.

Schlitz

THE BEER THAT MADE MILWAUKEE FAMOUS

Beer is barley-malt and hops---a food and a tonic. Just a touch of alcohol in it.

Not a beverage known to man is more healthful, if the beer is right.

'Tis the national beverage, from childhood up, with the sturdiest peoples of the earth.

To the weak, it's essential; to the strong it is good.

BUT— the beer must be pure.

Impurity means germs, and germs multiply rapidly in any saccharine product like beer.

And the beer must be old.

Age means perfect fermentation. Without it, beer ferments on the stomach, causing biliousness.

Schlitz beer is brewed in absolute cleanliness.

It is cooled in a plate glass room, in filtered air.

Then it is filtered; then aged for months in refrigerating rooms. After it is bottled and sealed every bottle is sterilized.

Not a germ can exist in it.

These costly precautions have made Schlitz the standard for purity wherever beer is known.

You can get it just as well as common beer if you ask for it.

Ask for the Brewery Bottling.

Light, Small and COMPLETE

Weight
17 ounces

Measures
1⅞ inches thick,
4¼ inches wide,
5¼ inches high.

Price complete $9.00

Lightness and compactness are merits that are more appreciated by the camera owner the more he uses his camera.

In traveling, hunting, fishing, yachting—all the forms of out-door life—a camera that goes in the pocket, weighs next to nothing, **and takes perfect pictures** is the photographic ideal.

Amateurs are realizing the manifold benefits of using a small, good camera. Waste is avoided and the small plate or film negatives, being the work of a fine lens, make beautiful enlargements. The

Pocket Poco

for time or instantaneous exposures is a completely equipped instrument for artistic work. It is fitted with a rapid rectilinear lens, a ground glass with actuated spring back for the use of **plates or films;** an automatic shutter; a 6-inch bellows; a perfect finder for snap-shot work. Examine it at your dealer's, or send for book describing the full line of Pocos for 1902.

Rochester Camera and Supply Co.
522 Poco Street, Rochester, N. Y.

AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

7th ANNUAL COMPETITION.

RECREATION has conducted 6 amateur photographic competitions, all of which have been eminently successful. The 7th opened April 1st, 1902, and will close November 30th, 1902.

Following is a list of prizes to be awarded:

First prize: A Long Focus Korona Camera 5 x 7, made by the Gundlach Optical Co., Rochester, N. Y., fitted with a Turner-Reich Anastigmat Lens and listed at $85.

Second prize: A No. 3 Folding Pocket Kodak, made by the Eastman Kodak Co., Rochester, N. Y., fitted with a Bausch & Lomb Lens Plastigmat Unicum Shutter, and listed at $61.50.

Third prize: An Al-Vista-Panoramic Camera, made by the Multiscope and Film Co., Burlington, Wis., and listed at $40.

Fourth prize: A Wizard C Camera, 4 x 5, made by the Manhattan Optical Co., Cresskill, N. J., with B. & L. Iris Diaphragm and Leather Carrying Case; listed at $33.

Fifth prize: A Waterproof Wall Tent, 12 x 16, made by D. T. Abercrombie & Co., New York, and Listed at $32.

Sixth prize: A Gold Hunting Case Watch; listed at $50.

Seventh prize: A Tourist Hawkeye Camera, 4 x 5, and made by the Blair Camera Co., Rochester, N. Y., and listed at $15.

Eighth prize: A Bristol Steel Fishing Rod, made by the Horton Mfg. Co., Bristol, Conn., and listed at $6.

The 10 next best pictures will each be awarded one dozen 8 x 10 Carbutt Plates, made by the Carbutt Dry Plate Co., Wayne Junction, Philadelphia, Pa.

The 10 next best pictures will each be awarded one dozen 5 x 7 Carbutt Plates.

The 10 next best pictures will each be awarded one dozen 4 x 5 Carbutt Plates.

A special prize: A Goerz Binocular Field Glass, listed at $74.25, will be given for the best picture of a live wild animal.

Subjects are limited to wild animals, birds, fishes, camp scenes, and to figures or groups of persons, or animals, representing in a truthful manner shooting, fishing, amateur photography, bicycling, sailing or other form of outdoor or indoor sport or recreation. Awards to be made by 3 judges, none of whom shall be competitors.

Conditions: Contestants must submit 2 mounted prints, either silver, bromide, platinum or carbon, of each subject, which, as well as the negative, shall become the property of RECREATION. Negatives not to be sent unless called for.

In submitting pictures, please write simply your full name and address on the back of each, and number such prints as you may send, 1, 2, 3, etc. Then in a letter addressed Photographic Editor, RECREATION, say, for instance:

No. 1 is entitled —— ——.
Made with a —— —— camera.
—— —— lens.
On a —— —— plate.
Printed on —— —— paper.
Length of exposure, —— ——.

Then add any further information you may deem of interest to the judges, or to other amateur photographers. Same as to Nos. 2, 3, etc.

This is necessary in order to save postage. In all cases where more than the name and address of the sender and serial number of picture are written on the back of prints I am required to pay letter postage here. I have paid as high as $2.50 on a single package of a dozen pictures, in addition to that prepaid by the sender, on account of too much writing on the prints.

Any number of subjects may be submitted.

Pictures that may have been published elsewhere, or that may have been entered in any other competition, not available. No entry fee charged.

Don't let people who pose for you look at the camera. Occupy them in some other way. Many otherwise fine pictures have failed to win in the former competitions because the makers did not heed this warning.

TONING VELOX AND BROMIDE.

In March RECREATION you state that you can supply formula for toning Velox and bromide prints to a number of colors. I should like that formula, if you please.

Wm. T. Perry, Worcester, Mass.

ANSWER.

For red, orange or brown, over expose 10 to 20 times, and to the regular developer with bromide of potash add the following restraining solution:

Bromide of ammonia	½ ounce
Carbonate of ammonia	½ ounce
Water	10 ounces

Dilute the standard M-Q developer with its bulk of water and add 3 drams of above restraining solution to each ounce of developer used. Then develop patiently as the finer reds are produced, providing the exposure has been long, by prolonged development, perhaps as much as 20 minutes being necessary. Those who fail to obtain excellent results should try a much longer exposure than they first gave. The intermediate colors are yellow, orange and brown, the red, a fine Bartolozzi, coming last of all. When secured, rinse, fix and work as usual.

Another red is obtained by immersing a print that has been developed and fixed as usual in the following:

(1) Water .....20 cubic centimeters
10 per cent solution of copper sulphate ..... 1 cubic centimeter

And enough 10 per cent solution of ammonium carbonate to dissolve the precipitate formed and produce a deep, clear blue.

(2) 10 per cent solution of potassium ferricyanide .....25 cubic centimeters
Water .....150 cubic centimeters

Add 2 to 1. In this muddy liquid the black and white velox will become a rich red. If the solution be diluted, a purple may be obtained in it.

To obtain green, after turning prints red mix the following bath and use it at once. It does not keep:

Water ..... 8 ounces
Potassium ferricyanide, 10 per cent solution .....24 minims
Glacial acetic acid..... 1 ounce
Uranium nitrate, 10 per cent solution .....24 minims

If the whites become discolored, soak prints in a tray of clear but not running water, and if a few changes of water should not clear the whites in 20 minutes immerse in a one per cent solution of sulphocyanide of ammonia until the whites bleach, which they should do rapidly.

To obtain green, after turning prints red in the last bath given, immerse them in the following solution and then wash sparingly:

Water ..... 3 ounces
Parchloride of iron, 10 per cent solution .....30 minims

Another green may be obtained by adding 2 drams of a 10 per cent solution of uranium nitrate to the bath given for blue. The green will wash off in running water, hence the prints should be merely rinsed in a tray of water.

Blue tones are secured in the following bath:

10 per cent solution of citrate of iron and ammonia .....2 drams
10 per cent solution of potassium ferricyanide .....2 drams
10 per cent solution of nitric acid..4 drams
Water .....4 ounces

Immerse the print until a rich blue is obtained, then wash well. The bath keeps. If to this bath is added its bulk of water, a blue-black will result, with grayish halftones.

Para-amidophenol developer produces the finest warm black tone. Use the formula with carbonate of potash given in the directions with the developer, or bleach in

Bichloride of mercury.....12 grains
Muriatic acid c. p..... 2 drams
Water ..... 6 ounces

until the image is gone. Then wash well and immerse the print in combined toning and fixing bath diluted to 10 times its bulk. Wash well.

Sepia tones are to be had with old para-amidophenol developer that has been used considerably, or in

Hypo-soda ..... 5 ounces
Powdered alum ..... 1 ounce
Boiling water ..... 25 ounces

First dissolve the hypo, then add the alum. This gives a turbid solution, which is to be used unfiltered. The older it is the better, and if used hot it affords results that may take a day or more if used cold. The addition of a trifle of silver nitrate or some printing-out paper clippings will greatly improve the bath if it works slowly. An old bath, used cold, produces the finest prints, though, as stated, it works slowly. After the desired color is obtained, sponge the backs and faces of the prints well and wash thoroughly. E. W. N.

BALD HEADED PICTURES.

Formerly a blank white sky in a photograph was looked on favorably, and as evidence of great care in the manipulation. I have seen many landscape views in which the composition was faultless, yet the sky was a perfect blank, entirely destroying the harmony of the picture and giving a feeling of incompleteness that was aggravating. In negative making the actinic nature of the blue in the sky, although plainly seen by the eye, destroys the harmony or true color value by persistently coming up a dense black deposit on the negative, and even before the other details of the picture are fully developed. With ordinary plates this is hardly possible to avoid, as the plate catches the actinic rays, and the eye sees the luminous rays. Again, the farther those rays have to travel the more sensitive they become, proof of which is that near objects always require a longer exposure than distant objects in a landscape. The darkest part of a cloud will reflect more actinic rays than the brightest part of a landscape, although in color value to the eye the cloud may appear much darker.

Many ingenious devices have been used to cut off the superfluous light from the sky, such as a sky shade in front of the lens, or a diaphragm with a graduated slot presenting a full opening to the foreground and gradually cutting off the top light. These appliances work well in special cases,

but will not answer all requirements, and besides, have to be adjusted for each separate view. Instantaneous views will, when the clouds are pronounced and the landscape well lighted, develop simultaneously to something like the true value; but instances like these are rare except in seascapes.

Orthochromatic plates and a color screen will do wonders in rendering sky and landscape in true color value, especially on a day when the sun is setting in a red and purple Turneresque sky, or when there is a soft haze over all. But on a bright summer day, when the atmosphere is clear and beautiful rolling white clouds chase each other over a deep blue sky, the orthochromatic plate and the color screen, together or separately, ignominiously fail to render anything like the effect we have tried to reproduce in our print.

After trying all schemes to catch the fleeting cloud and the landscape together on the same plate, I find the only sure way to combine the 2, with any degree of satisfaction, is by the old process of double printing. Of course this means extra work in printing and the use of 2 negatives, but we have the satisfaction of being able to produce a picture perfectly balanced and complete in all its details. For example, take a picture showing a long stretch of landscape. If a suitable sky be printed in, shading it so as to produce the brightest light at the horizon and gradually darkening toward the zenith, it heightens the atmospheric affect and helps the perspective in the picture.

It is advisable to have a variety of cloud negatives on hand to avoid monotony, and they should also be lighted from the right and from the left to suit various views. It is not necessary to have orthochromatic plates on which to make the cloud negatives. In the sky there is no trace of color save the azure blue and the white of the clouds. By the use of a simple ray filter, dark or yellow, according to the contrasts desired in the effect, the most beautiful cloud negatives can be produced on any make of plate or film. The yellow of the screen changes the blue of tne sky into a green, which photographs in its true color value and the white clouds stand out clearly. It is not a bad idea to have a set of negatives of clouds on film, as they can be printed from either side to suit right or left pictures, and if printed through the celluloid the softness given would be an improvement rather than a detriment.

Looking at a sunlit landscape the eye does not first take cognizance of the clouds, but of the landscape, therefore the clouds should be printed to have the same effect in the picture. The best effect is when the cloud negative is printed until the deepest shadows of the clouds are just distinctly visible. Were the clouds printed in too strongly it would enthrall the gaze of the beholder to the detriment of the picture. Of course this is different when it is desired to render a pure cloud effect. Then the clouds may be printed in to the full strength of the rest of the view, but in this case it is a rule never to have the horizon line above one-third of the picture, the sky and clouds occupying the remaining two-thirds.—W. J. Howell, in the Camera and Dark Room.

NOT SATISFIED WITH AWARDS.

Worcester, Mass.

Editor RECREATION:

I have read your answer to H. G. Gosney, in May RECREATION. I had no intention of making any remarks about the recent photo competition, but since seeing your letter I have decided to express myself freely in the hope that a future contest may be decided with some consideration as to the merits of the photographs. Take the fishing scene that was awarded first prize. That is a good photograph, but I should like to know what the fact that it was taken with an expensive lens has to do with the awarding of a prize. That same picture can be duplicated by anyone who has a view camera and an achromatic lens costing perhaps $3. An expensive lens is not one of the requirements of photography, especially on photos of that nature where the subjects are posed.

Regarding the photo of the 3 deer that was awarded a special prize: You said in your answer to Mr. Gosney, "There are other elements that must be taken into account in awarding a prize to a picture than the difficulty of getting it." The other elements evidently were not taken into account with this photo, as its only redeeming feature is that it is a somewhat rare subject to get. I will admit that it was taken under unfavorable conditions, but in a photographic contest photographs are to be considered and not conditions. Detail is entirely lacking. The water, shrubbery, rocks, and practically every tree have been carefully engraved in by hand. That is not a photograph. It is an engraving.

The 11th winner was a tame goose on nest. That is certainly a wonder for a prize winner! The nest is made of sticks and the bird has a head, but both are so much out of focus that they are hardly recognizable.

The most interesting awards of all are shown together on page 105 in February issue. "Howling Coyote" gets prize 4, while "Resting" gets 8. You have said that an expensive lens counts for a good deal in the awarding of a premium, yet 8th prize

winner was made with a good lens while 4th was made with a cheap achromatic, the lens not more than $2. You have praised the fishing scene because of the great detail and sharpness it possessed, yet you have given 4th prize to a photo that has no detail in any part of it; while "Resting," which has good detail for the subject, gets only 8th. A coyote taken at the distance that was should show every hair on him, while in this photo the outline of the head and ears had to be touched up or they would hardly have shown. The only part of the picture in focus is a strip of sand about 8 feet back of the beast. Why should a tame pet coyote, all out of focus, standing against a background that shows nothing interesting, be awarded any place at all? The cat shown on the May cover and awarded 69th place is so far superior to the photo awarded 4th that a comparison would be impossible. So much for the past competition. Now for the future.

Can you not award premiums so there will be some degree of fairness?

Why bar professionals from competition? They can not and never could take a better photo out of doors than an amateur.

Photos of nests and eggs should not be considered. Where is there any more merit in one of this kind than in a simple view of a tree or flower?

Judge the merits of a picture s a photograph and take into account the difficulty of obtaining it, but let the make of lens or camera with which it was taken be unknown to the judges.

Have professional photographers for judges. Have all photos claimed to be from living animals or birds passed on by someone who knows something of the subject.

Do not give prizes to one who sends pictures of captive birds as wild ones. As soon as a bird becomes a captive it is the same as a tame one a d ought not to be considered.

If you will adopt some such lines and have everything distinctly understood at the start, there will be no cause for dissatisfaction. As it is now you are simply encouraging the taking of fraudulent photographs, by awarding prizes to fake pictures and turning down those that are legitimately made. Such a competition would be strictly fair in all particulars.

Charles A. Reed.

THE WORKROOM.

Negatives distorted by tilting the camera and not having the necessary swing-back can be corrected by the following device: Instead of making the print by contact, make it by projection. Put the negative into an enlarging camera or any outfit used for making bromides. Adjust your image on a piece of white paper or card to the size you wish and then swing, or incline forward or backward the top of the carrier. If the top of the image is too narrow, tip it backward until the lines are straight; if the top is too wide, tip it forward. Always have the part of the image which is too wide nearer to the lens than the narrower parts. After the perpendicular lines have been corrected, focus on the center of the image, which is about half-way between the 2 extremes. Then stop the lens down as far as the other conditions will permit. By using F 32 to F 64 you will get sufficient depth of focus for the most severe cases. The so-called gaslight papers are too slow for this work, and a bromide paper of some kind must be used. It will work well with the same developer, but may require more bromide.

To keep prints from curling it is not necessary to soak the whole print in a solution of glycerine in water. This makes the paper flabby and less able to resist the strain of the film. It is better to apply the glycerine solution to the surface of the picture. Draw a layer of absorbent cotton over the edge of a piece of glass. An old 4 x 5 negative will do. Then, over the outside of this stretch a piece of muslin and slip a rubber band. The strength of the glycerine solution depends on the nature of the print, or rather the thickness of the gelatine coating; but it is safe to begin with one part of glycerine to 3 or 4 parts of water. This is about a medium strength. A few trials will show the strength best suited to the paper. If, after thorough drying, the prints appear moist to the touch, less glycerine can be used. When, on the other hand, they still show a tendency to curl, use a stronger solution. Of course, only gelatine papers are suitable for this treatment. The prints must be dry when treated, and the glycerine solution can conveniently be kept in a small tray.

Those who use amber chimneys, with Welsbach burners, in the dark room are undoubtedly familiar with the tendency these chimneys have to break when they are expected to do service. Their diameter is too small, they are too short, and the least flaw in the mantel will cause them to break. For all around usefulness an orange or ruby-colored wine bottle, cut off at the top and bottom, is much to be preferred. It excels in color, diameter, height, durability, and price. The cutting is simple. Wind a cotton string 3 or 4 times around the part to be cut, and tie it. Saturate the string with either alcohol or kerosene and ignite, turning the bottle slowly till the flame has become extinguished from exhaustion. Dip the bottle perpendicularly into a pail of cold water. The instant the water reaches the string the bottle will fly

apart. After having cut off the top and bottom, smooth the edges with a file and the chimney is finished. For dry plates, this is still too strong a light, and must be surmounted by a larger box, the openings of which are covered with ruby glass or fabric. A similar way of cutting bottles is by means of a pointed flame produced by a blow-pipe. A small spot is heated and a drop of water will start a crack. The flame is then applied a little in advance of it, and the crack will slowly follow the flame. By this method many elaborate designs can be produced.—Geo. S. Becker, in Western Camera Notes.

THE COON WAS NOT HARNESSED.

Oxford, Md.

Editor RECREATION:

Mr. Homer G. Gosney, in May RECREATION, complains because his woodcock picture did not receive higher consideration by the judges in your late photo contest, and seems to blame you. He disclaims any desire for a higher prize, yet seems dissatisfied because he did not get one. I am glad to have friend Gosney give an honest opinion of my efforts at amateur photography, but when his observations are false as to matters of fact, I request a small space to refute these reflections, as many of my friends are regular readers of RECREATION.

In criticising the picture "Besieged," Mr. Gosney calls attention to a "string, or rope," which, he claims is tied to the coon's collar. That is not true. No string or rope hampered the movements of this unfortunate raccoon. He was caught with coon dogs, the same as any other coon, and as shown in the picture, along a shore familiar, no doubt, to all his ancestors. If the water was not sufficiently "choppy" to meet Mr. Gosney's ideas, it was the fault of the wind and not of the camera.

I send you by express the negative from which the picture "Besieged" was made, that you may pass your own judgment as to whether the coon was tied and the string held by a man on the bank, and whether the water effect is not fully shown in the development of the plate.

The scratch on one end of the negative was made after exposure and before development, in an effort to get the plate out of the plate holder with the point of a small knife blade. The plate simply stuck in the holder and was scratched in the effort to pry it out.

J. E. Tylor.

I have examined the negative carefully, under a powerful glass, and emphatically endorse all Mr. Tylor says of it. There is no evidence in it of any string having been used. There is a scratch in the film which was no doubt made with a knife as stated.—EDITOR.

Mr. Gosney asked your readers to judge the 3 pictures. He did not give justice to the picture entitled "Besieged." If the coon had been held by a rope would the cord stand out straight or would it be slack? This scratch on the photo, for that is what it appears to be, is out straight.

Did you ever approach the nest of a woodcock and see it slanting the way Mr. Gosney's picture shows it? His picture looks as if he were right up on the bird. Would that bird stay there while Mr. Gosney got his camera in order? The birds are sensitive about being approached.

F. A. Greenhawk, Easton, Md.

SILHOUETTES BY PHOTOGRAPHY.

There is a considerable advantage to be derived from studying silhouettes which is hard to find in the detailed picture. If one really wishes to impress the memory of a friend's face indelibly on the mind a study of the silhouette is a necessary preliminary. There we find certain characteristics all separated from the confusing details and in the outlines of several silhouette poses we secure truths that are worth study.

If only desired for the mere fun of the thing photographic silhouettes are certainly worth anyone's while and will be found easy to make and entertaining. I have an album of these pictures on a table in the reception room and can always depend on it to while away a little time in entertaining a caller who may be acquainted with some of the originals of my silhouettes. Guessing who's who is no end of fun sometimes, though as a rule silhouettes are about as easy to recognize as the best likenesses. The only way they may be made doubtful enough to guess about is by using odd poses—not always a profile or profile groups.

The best silhouette that can be made is made by photography. It is far in advance of anything that can be cut out of black paper, I care not how deft the hand, for it is truer and has far more in it. Attempt to cut out a figure from a print and then blacken it. The result will not have all those little touches that can not be done with scissors, and though good it will not compare with a photographic silhouette.

I do not know that I follow the most approved means of obtaining my silhouettes, but it does nicely nevertheless and I will describe it.

I simply pose my subject in the window, a sunny one, draw the white curtain, expose a back plate 1-10 second and develop with a developer to which extra alkali

has been liberally added. That brings up the high lights in a wink and leaves my subject clear glass. That is all there is to it except to print in Velox portrait, keep the whites clean and get a deep black tone.

Estelle G. Melrose, in The Photo-American.

A BUDGET OF QUERIES.

Please give formula for toning bath for P. O. P. paper, which does not require preliminary washing before toning in gold bath, one by which brown to blue-black tones can be secured.

How can chemical or light fog be removed from plates?

Give formula for intensifier, which will intensify shadows, etc., before the high lights.

Please give formula for a good local intensifier.

Can a rapid rectilinear lens be used as a fixed focus lens, either with double combination, or single lens, at different distances.

What camera and lens do you regard as the best?

Are gelatine prints, toned in single baths, permanent?

Are developing papers, toned in single baths, permanent?

J. R. Hoffman, Johnstown, Pa.

ANSWER.

A formula for gold toning after fixing, appeared several months ago in RECREATION in an article on that subject by E. W. Newcomb. There is none that requires no preliminary washing and gives good results.

If but trifling, rub with chamois pad, wet with alcohol. If strong, use Farmer's reducer.

None is known.

Dab blue water color paint on the back of the negative, where you want local intensifier. Pat it gently with forefinger to get it even.

Yes, if you set it for a certain distance, and then make sure to use it for that distance only.

The only means of deciding which camera is best, is to study the catalogues carefully and see which has the most features you require. All are the best.

Gelatine prints properly toned and well washed are permanent, whether single or double bath is used.

Developing papers are also permanent if properly fixed and washed.—EDITOR.

SNAP SHOTS.

I often have Velox print out unevenly with negatives that make good solio prints. What would be a cause?

How is a positive obtained from a positive, as a picture printed in a magazine when the printers have only a picture to work from?

Are isochromatic and non-halation plates more difficult to develop than the ordinary extra rapid plate?

Is there any better developer for Eastman plates that that put up by the Eastman Company?

Will printing Velox for 4 or 5 minutes help the prints when they develop too slowly with 3 minutes exposure?

G. V. Mc., Towanda, Pa.

ANSWER.

Perhaps you over expose them and the prints jump up too quickly. Try shorter exposure and longer development.

By photographing the picture on a copper plate and then etching; in other words, photo engraving. It is a process far beyond the amateur and of no use to anyone but those who use it commercially.

Iso plates are extremely sensitive to red light. They must practically be put in the holders in the dark and covered afterward, while being developed. Backed plates are no more difficult to handle than unbacked, providing you use E. W. N. backing, advertised in this magazine.

No.

Of course. Cut one 4 x 5 slip into 4 pieces, expose each a different time on same negative, develop all at once, and you will learn much.—EDITOR.

Please tell me what pyro powders, ready mixed, you prefer; also, what plates you recommend, speed considered.

As per March RECREATION, kindly give me formula for toning Velox to a number of colors.

S. A. Coupal, Lebret, Assa.

ANSWER.

Eastman's pyro powders, in glass tubes and Carbutt's, New York, are among the best plates.

For toning Velox to colors read reply to inquiry of Mr. Wm. T. Perry, in this issue of RECREATION, page 157—EDITOR.

I have some film negatives that I pinned up to dry on a hardwood table leaf, and they took the impression of the grain in the wood to such an extent as to show the grain in the print, thereby spoiling them for good clear photos. What can I do to remove this impression from the negatives?

P. S. Marsten, Medustic, N. B.

ANSWER.

Rub vigorously with alcohol.—EDITOR.

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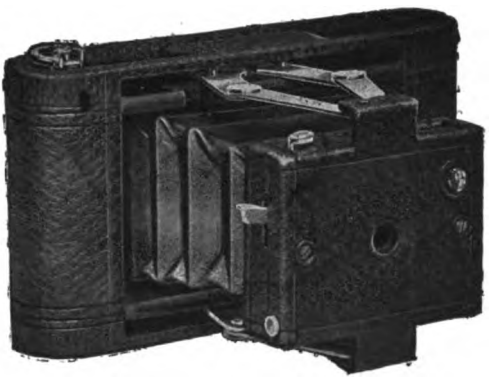

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Mention RECREATION.

There is little attention paid here to the game law. Pot hunters scour the country and shoot everything they can hit in the shape of game and song birds. Then, when snow comes, they take their ferrets and bags and get every rabbit that leaves a track, in order to sell them for 5 cents each. Thus they make good wages for a week or so, and when a sportsman goes out with dog and gun he is lucky if he can start 2 or 3 rabbits. There ought to be a law to prohibit the use of ferrets. I obtained over 100 signatures to a petition for such a law and sent it to our representative. He promised to put it through, but never did anything in the matter. I am going to try it again with our new representative next fall, and I want the help of the L. A. S. I hope to have 500 names on the next petition and shall not rest until I get them. I also hope the L. A. S. will present a bill to prohibit the sale of rabbits for at least 5 years; also to prohibit the sale of fish taken from small inland lakes and streams. When spring opens there will, as usual, be a lot of hogs violating the law, and if I catch one you will hear from me.

Drooks, Hillsdale, Mich.

Should like to hear more through RECREATION about the Sidle rifle telescope.

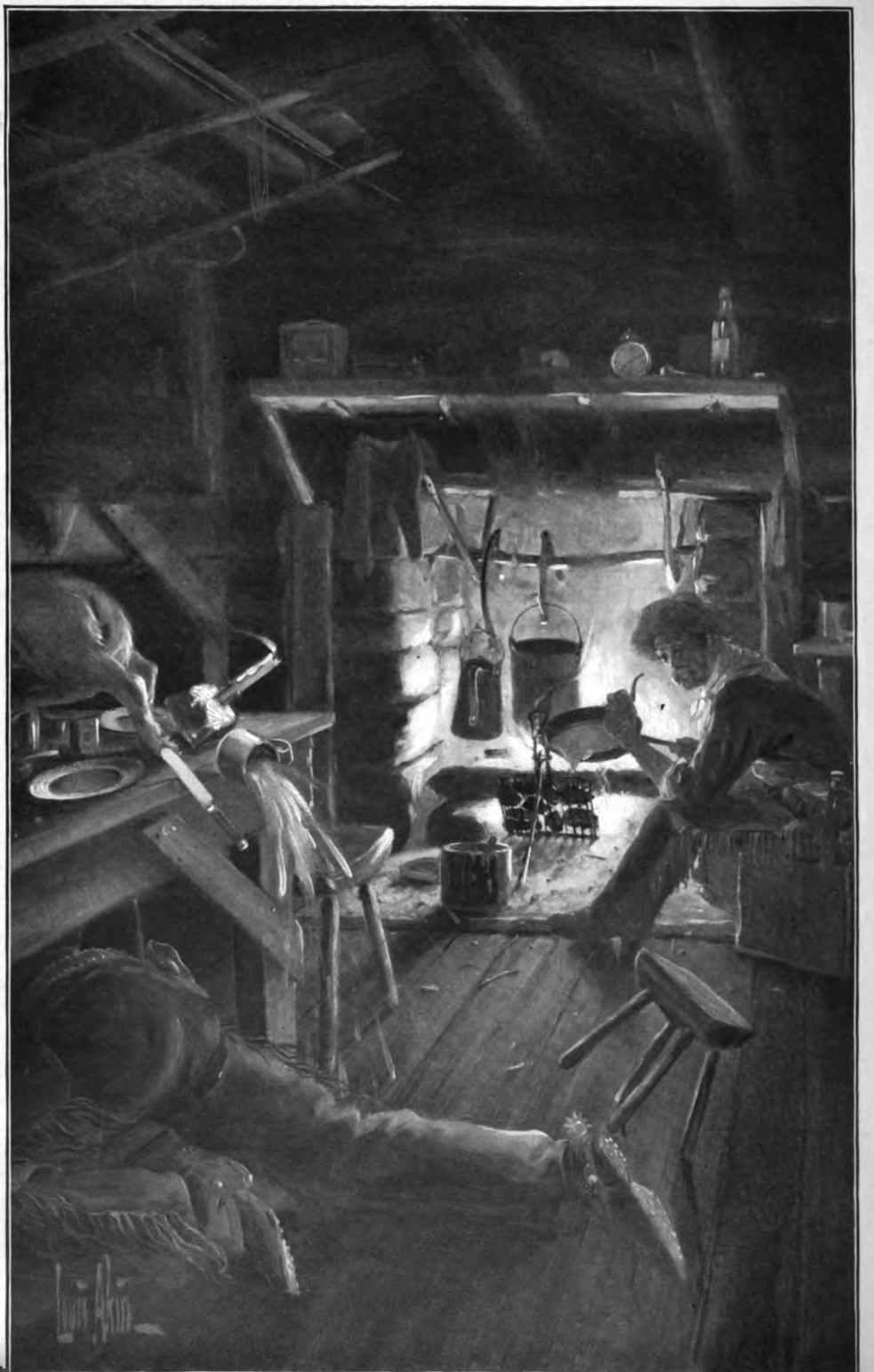
L. Bailey, Lead City, S. D.

Your gun and ammunition department is especially interesting. Please put in more articles about the world-famed 44 calibre. To my mind the 44 as a short range big game gun is without a rival, being short, light, accurate and powerful. As 90 per cent of big game killed is at short range, I do not see the need of the 30. The use of the 30 on game ought to be forbidden by law. Many deer are wounded by it, only to perish beyond reach of the hunter. Possibly there is a legitimate use for the weapon in the Far West, but the only way to save the deer in Minnesota, Wisconsin and Michigan is to bar the long range, game-wounding, 30 caliber rifle.

W. Mashek, Kewaunee, Wis.

White tail deer are still abundant at the head of Flatwillow creek. So. also, are antelope. Between the creek and Lake Mason I saw one bunch of 37 and another of over 60. Indians hunting wolf pups last spring slaughtered many antelope. Farther down, on the Musselshell, antelope are rare, but there are plenty of deer and a few mountain sheep. Sage hens and prairie chickens are more than plentiful. The settlers here, with few exceptions, observe the law. Newcomers on the Musselshell are of a different class. They are butchering game without mercy.

Petaluma, Flatwillow, Mont.



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ONE WENT UNDER THE TABLE AND THE OTHER OVER IT.

RECREATION

Volume XVII. SEPTEMBER, 1902. Number 3.

G. O. SHIELDS (COQUINA), Editor and Manager

MOUNTAIN SHEEP IN IDAHO.

GEO. F. WRIGHT.

We started to look up one of Idaho's lost mines. There are several. This one was of the right sort, however; not the kind where an old and dying prospector draws a map on a piece of bark, using blood instead of ink, and the hero does the rest. The story goes, or it does with some, that a man by the name of Giles had made a stake in the placer mines in the early 60's, and on his way out he ran into a goodsized bunch of Shoshone, or Snake, Indians who were handing down to posterity some hair-lifting tales by means of a paint brush and the side of a mountain. Giles was thirsting for knowledge or a place to hide, but the reds saw him first. He put on the boldest face he had with him, stepped up to the boss painter, cocked his head on one side, glanced at the canvas, so to speak, and tried to think up a good talk. The bucks stood around with war clubs at half mast waiting for a verdict; but Giles, though a diplomat, after a fashion, got confused. One set of scrappers in the picture were all cut up camp stove length, and, there being no flags, he could not tell whether the battle had gone to the Nez Perces or the Snakes, and whether the picture was a sort of monument to a great victory or a place for a lot of widowed squaws to go and butt their heads against. He took no chances, but asked the artist where he got his dye stuff. That would not fit in some countries, but it was a compliment there, as the Indians prided themselves on having the best and most lasting article in paints in that section. They were so pleased they gave up the secret.

"Burned the rocks," said the boss.

Giles did not know whether it was a joke, or if it was safe to build a fire anywhere except on the water; but they quickly relieved his mind in a manner different from that usually meted out to a white man. They took him to a place where one of the walls of a ledge had peeled off and exposed several feet of what he at first thought was gold. He began looking around to see if Solomon had left any of his tools lying about, but a closer inspection satisfied him it was only copper. He took a few pounds, to show he was a sure enough prospector, went to Lewiston, threw his mountain rig into his cabin, and went back East. There he lived in good style until one hazy day he went up against Wall street with a 4 flush.

When he crawled out from under the trance he thought of the great and glorious West. He hit the trail so hard that in a few weeks he was back in Idaho and at the cabin deserted nearly 30 years before. Lewiston was a city and the cabin a wreck. The only thing the pack rats had left was the old chunk of ore. Giles had it essayed, and nearly had a fit when he got returns that it was about one-eighth gold and the rest

copper. Back to the Snake river and the picture gallery he flew, but time had made many changes. Bushes had grown to trees and water spouts had harrowed up the country. With his failing memory he could only locate a few scattered paintings, and the Indians were gone, as Chief Joseph, of the Nez Perces, had cleaned up the Shoshone bucks and sold the squaws to the white miners over in the placer diggings. Giles is still out there, trying to locate the paint shop.

We were also trying to find that or anything else that looked as if it would make a mine. We finally ran out of meat, and had to take a trip up to the snow. In less than an hour we had 2 bighorn rams. That night in the cabin, while one of the boys was making dough gods and broiling a few choice pieces of mountain sheep to fit in several large appetites, the dog, which was a cross between a set of bunks and some groceries, thought he heard something down in the garden digging up one of his *caches*, and went out to investigate. His master followed. They returned so rapidly that one went under the table and the other over it. It was several minutes before we found out that the dog had tried to bring a cougar into camp alive and had nearly succeeded.

A few days later, while walking along the river, I saw a mountain sheep standing in a little pool of sun-warmed water. I got quite close to it before either of us was aware of the other's presence. The animal was so low down I concluded she had a lamb near and thought the warm water had taken the curl out of her hairpins, as her horns were nearly straight. What interested me most was the way she was winking her nose, just as a llama in a St. Louis zoo once did before it spit a wad of chewed grass on to my new white shirt and into my eyes. As the sheep and I stood facing each other, I thought I ought to have one of those street car health signs hanging to my neck. She was not loaded, however, and soon trotted off up hill, where a monkey could not go without climbers.

If any one doubts the sheep story I shall be pleased to send him the address of an old hunter and Indian fighter, who doesn't drink, and who says he has seen several such sheep. I don't think anyone will doubt his word when they learn that he is one of the survivors of the 'Dobe Walls fight; one of the gallant little band that held those mud walls for days and days and several nights against a stampede of Mexicans, Indians and other chopped feed. He had a younger brother with him, and together they were defending a weak spot in the dobe, when the allied forces rammed a hole in it with a log. Anyone who has ever been down in that section without a water bottle, where everything that is not red hot has a hook or a thorn on it, will appreciate the log part of this history. When the hole was made, the younger brother was hit by a bullet, fired probably by a Mexican with his eyes shut. As he fell the elder brother just doubled him up and stuffed him into the hole, thereby stopping the influx of poisoned arrows, copper balls, and sand fleas. At that stage of the game the blast of a C sharp bugle was heard, and the allied forces started for Mexico.

After 2 or 3 extra sessions of Congress it was decided in Washington that there was trouble in New Mexico. Word was sent out to the commandant of the nearest post, except the one the hole had been punched with, that he could move, which was ridiculous to him, as he had the gout; but he sent his able second in command, and they arrived tired and hungry. The human plug was pulled out of the wall and both were mended. The younger brother is telling fortunes for the miners, the elder telling lies for the drinks.

WHERE THE WILD DUCK QUACKS.

GEORGE MCADAM.

You may talk about your fishing,
Where the water boils a-swishing,
And of going home with nothing but your
"fish tales"
In
Your
Sack;

But for me there's nothing in it,
To compare with one sweet minute,
When, gun in hand, I hear the mallard
Quack!
Quack!
Quack!

On a joyous autumn morning,
Out just before its dawning,
When the throb of nature in your veins,
leaves
In your
Heart
No lack;

Down to the water gunning,
You are hurried into running,
For up the lake he's coming, with his
Quack!
Quack!
Quack!

But he's there before you're ready,
And he's gone before you're steady
Enough to train your fowling-piece so's to
get
Him in
Your
Sack;

But you needn't look so sorry;
Just climb into that dory,
And get ready for the soiree, of the
Quack!
Quack!
Quack!

For there's plenty to be doing,
While you're standing 'round a-stewing;
And the gay and festive duck for fooling
hunters
Has
A
Knack.

Your decoys must be just right,
You must yourself be out of sight,
And your boat be hidden quite, at the
Quack!
Quack!
Quack!

Oh, to fool the wary flyer,
Than which there is none shyer,
And bring him home, so plump and round,
enclosed
Within
Your
Sack!

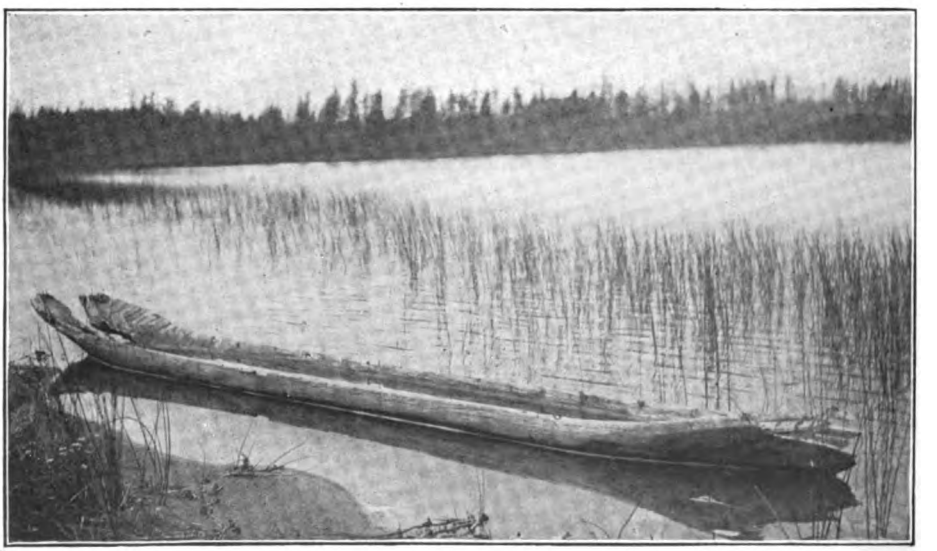
This is surely recreation,
And will make a whole vacation
For the man who's left vocation for the
Quack!
Quack!
Quack!

A Hamilton girl who had been very clever at college came home the other day and said to her mother: "Mother, I've graduated, but now I wish to take up psychology, philology, bibli—"

"Just wait a minute," said the mother. "I have arranged for you a thorough course in roastology, boilology, stitchology, darnology, patchology, and general domesticology. Now put on your apron and pluck that chicken."—Saxby's Magazine.

AMATEUR PHOTO BY RICHARD HALL.

AN EXCLUSIVE PICNIC.



AMATEUR PHOTO BY EDWARD C. CORDOR.

THE RUSHTON OF OUR ANCESTORS.

A MOOSE QUARTETTE AND A SOLO.

J. R. KING.

September 9, 1901, Dr. D. W. Greene of Dayton, Ohio, and I started for a moose hunt in New Brunswick, arriving at Fredericton the 11th. We remained there one day, buying provisions and necessary footwear. For the benefit of those who have not taken a hunting trip in New Brunswick I suggest that they defer buying footwear until they reach Fredericton. We received much valuable assistance from Mr. R. P. Allen, secretary of the Tourist Association of Fredericton. Those contemplating a trip there will find him a valuable assistant and thoroughly reliable.

The afternoon of September 12, we started for Boistown, arriving at 6 p.m. There we were met by E. W. and B. Norrad, who were to be our guides. They took us that evening by wagon to Hayesville, 10 miles distant. Early the next morning we were ready to start for their camps, 30 miles Northwest. From Hayesville we went 4 miles by wagon. Then everything had to be loaded on a sled and hauled the remainder of the way, over a fairly good road through an unbroken forest. That took us nearly 2 days as we had a heavy load. One can go the whole distance from Hayesville to Norrad's camp on horseback in one day, if preferred. We arrived there Saturday afternoon, the 14th, in good shape, rested Sunday, and early Monday morning started for Little lake, 3 miles distant.

We found well trodden moose paths around the lake, but saw no moose, nor could we get any response to the horn. At noon, while we were eating lunch, a cow moose and her calf, a yearling bull, came within 50 feet, and after gazing inquiringly at us started leisurely away through the woods; this owing, no doubt, to the fact that the wind was blowing from them to us.

The remainder of that day and the next were spent in diligent search for our game, but without avail. Wednesday, the 18th, while walking through a thick wood, the doctor suddenly came on a fine bull moose, but it got out of sight before he could fire. The same day I saw a cow and a calf feeding in Twin Sister lake, about 5 miles from Little lake. The next day Mr. Ed Norrad and I went to Brown lake, 3 miles Northeast of his camp, and a little after sundown we saw a bull moose enter the lake on the opposite side from us, about half a mile away. I tried to work around to get a shot, the wind being unfavorable, but the bull took fright before I was near enough, and hurrying out of the water he disappeared in the woods.

The next morning was all that could be asked. A sharp frost during the night and not a breath of air to disturb the lake made it perfect for calling. We were early at the lake, took up our station where we had been the night before and called, but got no response. On my suggestion we went to the point where we had seen the bull enter the lake the night previous, and called. At the second call an answer came from across the lake and a few moments later his bullship entered the water and deliberately waded toward us, keeping in shoal water. That was my first good view of a bull moose in his native state. He was a magnificent specimen, with large antlers. His bell, as nearly as we could judge, was fully 18 inches long, as it dragged in the water when his body was nearly clear. We had ample time to observe all that, which we did under a glass, as it took him nearly 20 minutes to round the end of the lake. When about 300 yards distant, he turned from us toward the shore, and fearing he had our scent, as the wind had started a little in his direction, my guide advised me to fire. I took deliberate aim across a stump, behind which I was sitting, and fired. Mr. Bull stopped, turned slightly toward us and looked surprised to think that anyone should dare so rudely to break the solitude of his haunts. I tried twice more, taking careful aim each time, but he still stood unmoved. As I was shooting a 45-90, with black powder shells, the smoke was so dense I could scarcely see the moose. On the third shot I saw the bullet strike the water some distance short of the mark. I then aimed high and saw the next shot strike the water just under his body between the fore and hind legs. The magazine being empty, I hastily reloaded and got in 2 more shots before he reached the brush, but without effect. The gun had been loaned me through the kindness of Mr. William Chestnut of Fredericton, and not being familiar with its capacity we had expected too much of it. Owing to the larger caliber I had taken that gun with me in preference to my own, a 30-30 Winchester with smokeless shells. The latter gun, I became satisfied later, is of too small a caliber for moose unless one can strike a vital spot.

Had we remained at the place first selected by us in the morning the moose must have passed within 50 yards in front

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of us and would have afforded a most excellent shot.

Owing to the unusually warm fall we found we were about 10 days too early for the mating season and could get no answer from the bulls, although we found numerous tracks and spoor about the lakes, especially Lake Tahoe, 5 miles from our main camp, where Mr. Ed Norrad and I went September 26th. There were 3 sharp frosts in the latter part of the month, with good effect. The evening of the 30th, we got good responses to calls, but could not get the moose near enough for a shot, although one of our party saw 2 large bulls across the lake.

The next morning, being too windy for good results, we got no answers. The following evening, however, was almost perfect. A short time before sundown, a large bull answered the horn from about a mile distant. He came from the West, tearing through the woods, making as much noise as a runaway team of horses, until within 200 yards, when he suddenly stopped and would not come nearer, despite the seductive notes of the horn and all the wiles adopted by Norrad. Much excited, I waited on the opposite side of a small barren for a sight of the moose, but the timber completely hid him from view. A few moments later we heard a deep grunt from the Northwest, followed by the rattle of horns heralding the approach of another large bull. He came steadily on to the edge of the timber 75 yards distant, but it was then too dark to see to shoot, even had he come out. Almost simultaneously with his arrival, came another from the West and one from the South, and the quartette we had near us for nearly an hour, would put to shame the famous jubilee singers.

We determined, as we could not get a shot, to get as much fun out of the affair as possible, and gradually creeping through the hardack brush until we reached a point 30 yards from the moose, where we were screened by a clump of trees, we took up our station. Norrad called and grunted alternately on the horn, which infuriated the animals so that they tore up the ground, hooked the bushes and trees and attacked one another, bellowing and snorting constantly. The heavy voiced one seemed to be monarch of them all, as we could hear him chase the others about. He finally attacked a dead pine stub, which we afterward found to be over 40 feet long and about 8 inches in diameter, with such force that it cracked, and finally, with a crash, fell to the ground. The bull celebrated the event by several bellows of triumph which we applauded. This caused them all, except the "big voice" to hasten away. He started slowly back to the ridge from which he had come, grunting in apparent disgust at each step, until the sound gradually died away in the distance.

This was a most thrilling experience, and alone worth the price of the whole trip. After stumbling along through the dark nearly an hour we reached our tent, tired and hungry. At noon the next day Mr. Jim Moone, a camp attaché, arrived, bringing me the doctor's gun, an 8 millometer Mannlicher. He told us the doctor had killed a large moose at 10 a.m. and a caribou at 5 p.m. the day before with a single shot each, and hence his full complement.

That evening we took up our stations on opposite sides of the lake, and the second call was answered by a bull coming from the ridge on the West side of the lake. As the main trail from that ridge had several branches when nearing the lake, the wisest thing seemed to go to meet him, lest he should become confused and lose his way. In a short time he made his appearance, grunting at each step, and took the trail leading nearest the lake. Being so screened by firs, it was impossible to get a good shot until he had approached within 40 yards, and then only his flank was visible between the trees. Almost simultaneously with the report of the gun, the bull pitched forward, falling on his head, but immediately sprang to his feet, facing. The next shot I fired at the middle of his forehead, striking about one inch below the base of the horns. He fell again and lay several seconds as if dead. All at once he bounded to his feet, but was still so screened by trees that again only his flank was visible. The third shot struck just 3¼ inches from the first. He fell again and to all appearances was dead. The rest of the party then came up, and on turning around after greeting them, to point out the moose we found he had got up and slipped away so quietly he had not been heard. On search, he was found standing in a fir thicket, 50 yards away, but on our approach he wheeled and started straight toward the lake. I fired my 30-30, the ball striking 4 inches below the back bone and passing the entire length of him. That seemed only to hasten his speed toward the lake, some 75 yards distant. My next shot was wild, striking his horns. He had then entered the water and he began to swim for the opposite shore. By the time we reached the edge of the lake he was 125 yards out, swimming low down, exposing only his head. The next shot was fired from the Mannlicher and broke his lower jaw. That seemed to confuse him so that he raised his neck some distance out of the water, affording a good target. I fired at this mark, the ball striking him about 8 inches back of the left ear, and coming out at the base of the right ear. That settled him, and he sank head downward in 10

feet of water, his head resting on the bottom, his hind parts just visible.

We proceeded at once to make a raft by cutting some dry pine trees and lashing them together with ropes. Mr. Norrad and Mr. Moone succeeded in towing the moose

RAFTING ON LITTLE LAKE.

near shore, when he grounded. They immediately abandoned the raft, jumped into the ice-cold water up to their arms, and hauled him near enough to attach a rope to his horns, when the 3 of us finally succeeded in hauling him near the bank. The raft was then brought alongside and by means of skids, ropes and handspikes, we landed him high and dry.

I was highly elated. Mr. Norrad, who has had much experience, said the moose was one of the largest, if not the largest, he had ever seen. Three experienced persons estimated the weight of the moose at 1800 pounds. On examination, we found that both of the shots in the flank had passed entirely through the body, and that either of them would have instantly killed or disabled any ordinary animal. The shot in the forehead had penetrated one-half inch just at the base of the horns and the bullet had crumbled as fine as shot, part of it being melted in the skull. It had not, however, gone through the skull, which at that point was over one inch thick and as hard as ivory.

Judging from what the guides tell me and by my experience I feel sure that had I depended on my 30-30 the result might have been different. While I regard the 30-30 as a hard shooter, it does not, in my opinion, carry sufficient lead to give a paralyzing shock to so large an animal as a moose, especially during the mating season, when they seem to possess abnormal vitality.

The next day I returned to the main camp, leaving the guide and 2 men to bring in the trophies. On my arrival there, mutual felicitations were exchanged between the doctor and me. I learned that he and his guide, Benniah Norrad, had seen 6 bulls and one cow 3 miles Southwest of the main camp, the same day that the doctor shot his moose. Judging from the number seen and heard during our stay and from the signs about the various lakes, there were nearly 100 moose within a radius of 8 miles from our main camp.

Mr. Norrad is well equipped with 2 good log camps and will build 2 more the coming summer. These outside camps are readily reached by good trails from the main one, from which provisions, etc., can be taken by a one horse sleigh to the outside camps. Mr. Norrad's territory is leased from the actual owners of the land, and is easily reached from Boistown. I can not speak too highly of the Norrad brothers. They are scrupulously honest, strictly temperate, industrious workers, and thoroughly qualified for their position as guides.

At the camp we left Graf von Armin, an attaché of the German legation at Washington. After a day's rest, we started on our return home, well pleased with our success.

Church—I see a California man who raises Belgian hares claims to have one as large as a young cow.

Gotham—I never could believe any of those hare-raising stories.—Yonkers Statesman.

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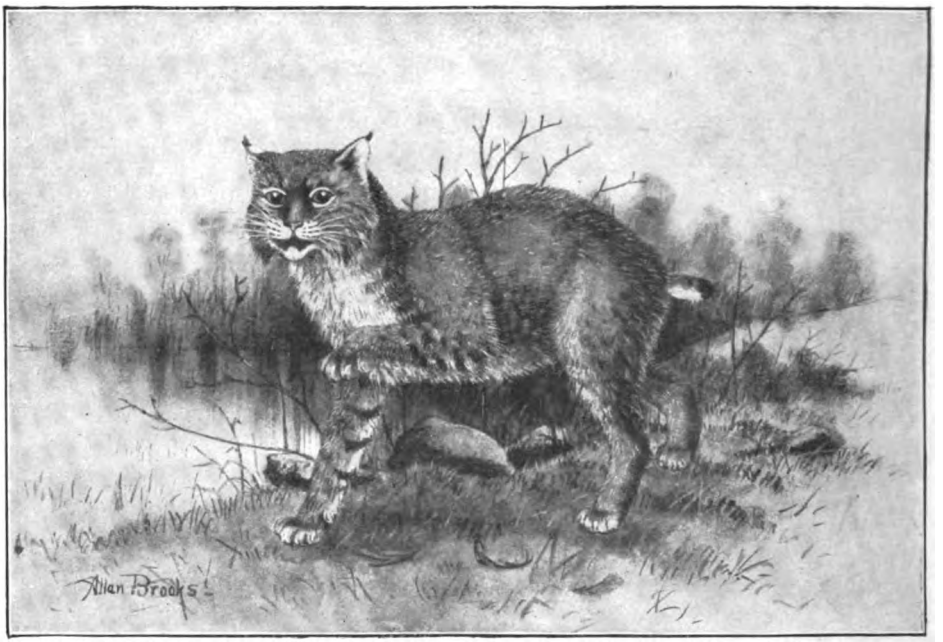
PLATEAU WILDCAT.

ALLAN BROOKS.

This handsome lynx, named in honor of the energetic assistant chief of the Biological Survey, is found from Arizona North to Southern British Columbia, but is confined to the semi-arid portions of the Rocky mountain region and West to the Eastern slopes of the Cascades. I have not heard of it farther North than Shuswap lake. It certainly does not occur in the Cariboo district to the Northward.



PLATEAU WILDCAT. *LYNX BAILEYI.*

Throughout the Northern portion of its range it frequents the brush and heavily timbered bottoms, rarely ascending into the mountains, though occasionally it can be trapped in the same localities as its larger relative, the Canada lynx. In coloration it is not unlike that animal, but always possesses the black barring of the legs and spotting of the lower parts, though in a much less degree than the other wildcats of North America. The pencils of hair on the ears are fairly well developed, reaching a length of ¾ inch.

In habits, the plateau wildcat species resembles other species, being rarely seen even in districts where it is common, doing nearly all its hunting at night, though I once observed one hunting *Spermophiles* at noon of a summer's day. This wildcat seems much easier to trap than its Pacific coast relative, *fasciatus*, and, like that animal, and all others of the same family, it will not fight when trapped. Only occasionally will one be found with enough pluck to defend itself when being dispatched.

Unlike most of the cat tribe, this species is generally excessively fat. The weight of an ordinary adult will range from 15 to 20 pounds, a large old male weighing 25 pounds. The iris is light reddish hazel, with a roundish pupil.

Mr. D. Speptic—My dear, I wish you'd prepare something occasionally to tempt my appetite.

His Wife—The idea! Why, you haven't any appetite to tempt.—Catholic Standard.

A MOOSE HUNT IN NORTHERN MAINE.

A. HEDGES.

That section of country lying in Aroostook county, bounded on the South by the Bangor & Aroostook railroad, on the East and West by the Caribou and Ashland branch of the same line, and on the North by the Ashland and Caribou wagon road, contains as many moose and deer as any section of the same size in Maine. Its leading advantages are: Its proximity to the railroad, which makes it possible to become comfortably settled in camp within 24 hours after leaving Boston; and its many waterways, making it easy to boat large game out to the settlements. Good guides can be hired at any of the railroad towns at reasonable rates. Those not wishing to rough it can obtain good board in those towns, many of which are within a few hours' tramp of excellent deer hunting, with even the chance of running across a stray moose. Grouse can be found in most localities throughout that section.

Although it is a moose country, I had failed to bring a moose to bag after 2 seasons of careful hunting. I always returned with my full quota of deer, but that failed to satisfy me. I wanted moose and nothing but a moose would or could fill the bill. If ever a country owed a fellow a moose, that one certainly did me. I had worked, tramped and paddled enough to earn at least a small one. When the time drew near for the third attempt I anxiously awaited the date set for our departure to again take up the trail. The evening of November 8 found Mert, my hunting companion, and me abroad the Bangor Express from Boston, our destination being Masardis, a small town on the Ashland Branch of the B. and A. The following noon we were met at the station by our guide, Clarence, and a drive of 5 miles took us to his comfortable house.

While getting our outfit ready for the morrow's hunt, we planned to give the country to the Eastward a careful scouring, and if that failed to show us moose or their fresh sign we were to go on to Clarence's camp at the head of Black Water brook.

We saved Clarence the trouble of calling us in the morning, and were soon ready for our hunt. In crossing the field in front of the house we saw 2 deer at the farther side, quietly eying us. They received a fusilade, with the result of breaking a fore leg of the doe. Leaving Mert to follow her, the guide and I made for a strip of burned land at the foot of Squaw Pan lake.

On entering the burn, we ran across fresh tracks of a large bull moose. By the signs we concluded he was feeding slowly, and unless frightened must be near. The wind being favorable we separated, Clarence following the track, which led along the edge of the burn, and I keeping abreast along the slope of the ridge. We had not gone far when my companion motioned me to join him. As I came up he pointed to the tracks of 3 other moose crossing the trail we were following. Again separating, we cautiously advanced as before, keeping a sharp lookout anead. In a few minutes I heard the report of the guide's rifle. I turned in time to see 3 large bulls running ahead. A fourth was standing in a clump of ash, 40 yards away, and showing by his actions that he was badly wounded. Leaving Clarence to take care of that one, I tried to get a shot at the 3 others. Just as I singled out the largest he swung to the left and made for the top of the ridge. By taking that course he brought a small thicket between us. I sprinted through the bushes and on coming out saw the moose standing broadside and looking in my direction, with only 170 yards of clear ground separating us.

There was the chance of a lifetime. I carefully brought the ivory bead to bear just back of the shoulder at ' grasping the rifle in a still firmer hand, held my breath and fired. I saw the dust and hair fly as the bullet struck in the right place. Hastily working a cartridge into the chamber I again fired at the shoulder. That shot brought him to his knees; he faltered a second, then fell over on his side, dead.

Clarence having finished his bull now made his appearance and after a silent hand shake we compared notes. We dressed our , rizes and returned to the house, where we found Mert, who had not succeeded in overtaking his wounded doe. We intended to haul the moose out the following morning, but a heavy fall of snow prevented our doing so until the third day. Because of the deep snow and a crust which made still hunting an impossibility we brought nothing to bag in the remainder of our 2 weeks' stay.

Some things are not what they seam; tailors, for instance.

THE MONARCH'S BATTLE CRY.

R. T. L.

A streak of soft light in the Eastern sky
  Proclaimed the coming of another day;
And ere the hilltops gleamed with sunshine bright,
  The birds took up again their happy lay.

Among the hills reposed a placid lake,
  A little cottage on its wooded shore;
And when the sun the cabin windows kissed.
  An honest hunter stood without the door.

While gazing on this pleasant, peaceful scene.
  His memory took him to another place
Where, mid the city's turmoil, strife and din,
  The people strove in gain's mad, wearing race.

But hark! across the waters of the lake
  There comes a sound which stirs the hunter's blood!
It echoes clearly now from shore to shore,
  Then dies away within the distant wood.

All rangers of the forest know that sound—
  The call to battle of the forest king;
And as the hunter stands with mind intent,
  He hears once more that call to combat ring!

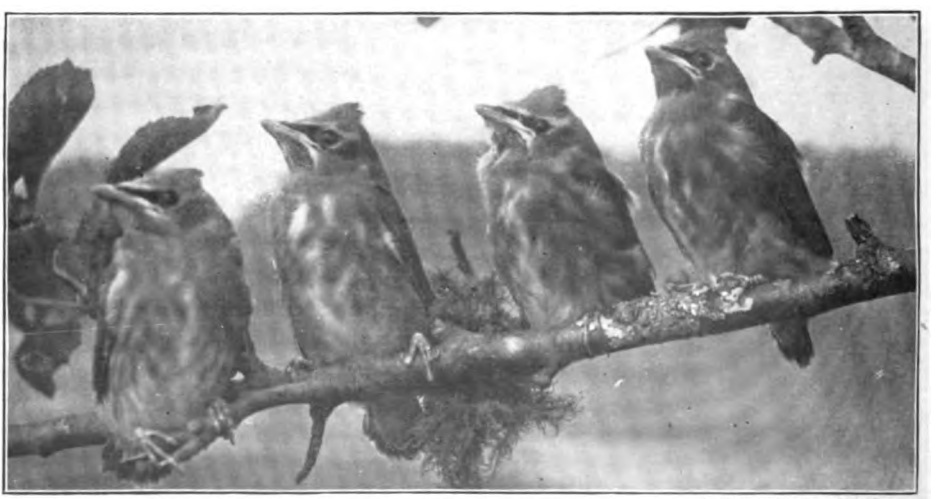
The hunter turns with eager, noiseless tread,
  And steps within the little cabin door;
But soon appears, with trusty rifle grasped,
  And glides along the path which skirts the shore.

He halts at last among the forest trees,
  And from some birchen bark a trumpet makes.
Now quick the answering battle cry rings forth,
And o'er the rippling waves an echo wakes.

At first no answer greets his list'ning ear.
  Then clear, above the sighing of the trees,
In swelling cadence comes again the sound
  Across the limpid waters on the breeze.

With keen suspense, and rifle held in poise,
  He waits the coming moose—that noble game
Which oft, in woodland glades in regions wild,
  Has made for huntsmen long enduring fame.

With ponderous tread, and mighty head upraised,
  The monarch of the woods comes into view.
The rifle cracks! The warrior's days are o'er!
  He reels and falls, his valiant heart pierced through.



AMATEUR PHOTO BY E. T. WOOD.

ATTENTION!

AN ADIRONDACK LAKER.

H. R. BARNARD.

Buoy fishing for lake trout during summer in the Adirondacks seems the most successful method of taking this wary fish. Trolling is often tried, but on the whole is unsatisfactory. The guides of that section do not approve of buoy fishing. They think too many trout are taken that way, and I presume some catches have been made which warrant that feeling; but no true sportsman would carry it to excess even if he had the chance.

While camping with a small party a year ago I had occasion to try various methods of fishing, but was unsuccessful in trolling with a spinner and in drifting with a minnow. As a last resort a buoy was anchored and baited faithfully twice a day with cut-up chuts, suckers, sunfish and frogs, and not until the third day was it fished. Three trout averaging 3 pounds were taken in as many minutes, and then the fish failed to respond.

Day after day the buoy was fished and then baited and each person of our party tried his luck without success. Those 3 lakers had deluded us with a promise of good luck, but as it turned out we had to be content with bacon and flapjacks, although we occasionally caught a small brook trout.

The only thing that made me and another of the party persevere at the buoy was the fact that about every other day one or the other would have a good bite; but for some reason we were unable to hook a fish. My companion gave it up as a bad job, so I was left alone. Twice a day I was at the buoy. Early in the morning and often from 2 until 6 at night I would sit, determined to catch a laker.

One afternoon, out unusually early because of a bite the preceding day, I set 3 lines from the boat, which, I presume, some will say was a highly unsportsmanlike proceeding. In addition to this I held my rod in my hand and settled down patiently.

About 4 o'clock I had a bite on a hand line at the other end of the boat. Hastily scrambling for it, I gave a quick jerk and hooked. I began pulling in eagerly when all the lines started running out and I soon realized my fish had wound himself around all of them. Naturally, I got rattled in the general mix-up and lost my fish.

My lines were badly tangled, but I got my rod line out all right and resumed fishing. Soon another pull put my tip under water. I had this one, but he made known his intention of heading for the buoy rope. In order to check him I grasped my line and started hauling him in hand over hand. He was coming pretty fast and in my imagination I saw him lying in the bottom of the boat, his spots gleaming in the sun. He shot up into the air, unhooked himself and fell into the boat—a monster sucker with flaps on his mouth an inch wide. When I brought him in 2 of the party saw him and gave me the laugh, but we cut off his head and palmed him off on the third as a brown trout.

I caught several nice lakers that week, but during the last of my stay succeeded in getting one to be proud of.

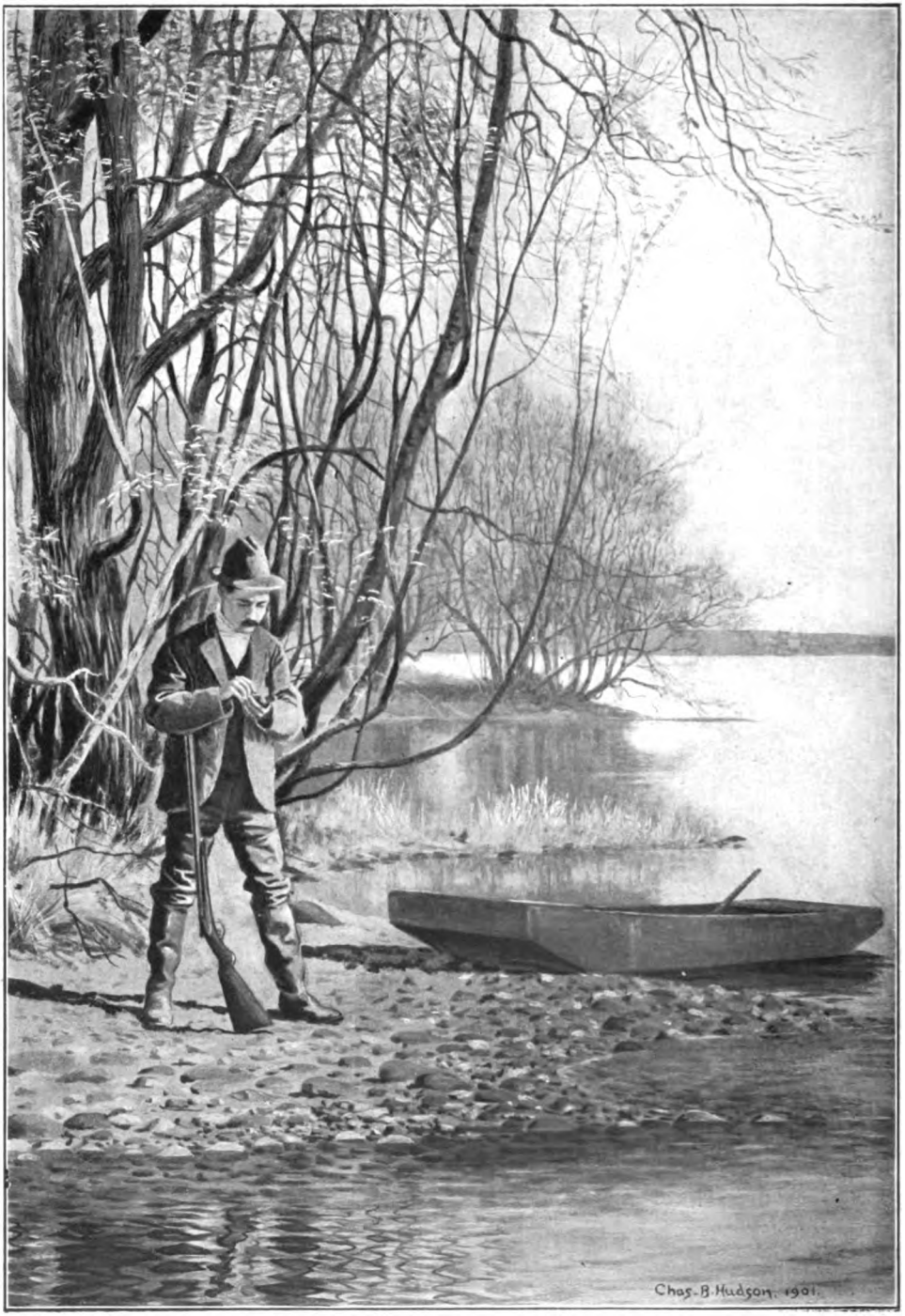
Early one morning I was fishing at the buoy with my rod and an Automatic combination reel, which I got through RECREATION. In my opinion it lays over them all.

When my bait was on bottom or several inches above I had about 6 feet of line left on my reel. Hardly anticipating a bite that morning I was thinking of going in when a fish struck and carried off the slack in a flash. Being taken unawares I felt my line grow taut. My tip went under and my little finger pressed the brake just in time. Three feet was pulled from a tight spring, the boat swung around and the fish was checked. The last pull brought me to my feet and I certainly thought I had a 30-pounder.

Then ensued those glorious moments all anglers love, when the spring responds to each lunge and as quickly gathers your advantage. Back and forth I played him until my arms ached with the strain, but he was slowly losing ground. I checked hard his every lunge, knowing both rod and line were unbreakable when properly handled. At last I had the satisfaction of seeing him. From 10 feet beneath the surface he came up steadily, thoroughly played out. The strain had been too great for him. Then he lay on the surface, slowly rolling himself in the line. Carefully putting my fingers under his gills with an effort I laid him in the boat. As it proved later he weighed 10 pounds. I soon put him out of his misery by breaking his neck, let out a whoop and pulled anchor.

"Do you believe in heredity?"

"Certainly; I know a barber who has 3 little shavers."—Exchange.



THE LITTLE SINGER'S TRAGIC DEATH.

A TINY TRAGEDY.

L. C. REMSON.

The first faint light of early dawn was stealing through the tree tops which fringed the Eastern horizon as I arranged myself behind an apology for a blind, which consisted of a few sticks of driftwood and some willow bushes. Ducks were not plentiful in those waters, but during April there were occasional flocks passing from lake to lake and, as several had been seen within the preceding few days, I decided to try my luck with them that morning. The place where I sat commanded the connecting channel between 2 portions of a lake. It was the best obtainable position, for the birds in flying up or down the lake invariably passed through this narrow space, which was bordered by alder bushes and willows. From this point I could reach any bird passing between me and the opposite shore.

Nature gradually awakened about me at the kiss of the rising sun. A flock of blackbirds called cheerily as they passed Northward, their glossy plumage covered with a metallic sheen by the glancing rays of light. A muskrat stole from its lair and swam boldly around the corner among the willow sprouts. Hardly a breath of air was stirring, and there was just enough motion of the water to cause a gentle but constant lap, lap, against the stony bank.

An hour passed and not a duck. I leaned over the blind and peeped down the full length of the wooded shore. Ah! What is that? Mere black specks, one, 2, 3, 5 of them, headed my way. I braced my feet firmly against a stone and broke off a twig which had been scratching my cheek. Still they came, steady as clockwork, stretched in a perfect line, the leader well in advance. My gun was opened nervously and the shells examined. All right; 3¼ drams of powder and 1⅛ ounces of No. 4 shot. They were black ducks and coming directly up the channel. The tip of my gun covered the leader and was quickly advanced, straight on a line with his neck and 3 feet ahead of him.

Bang!—Bang!—

The first falls. Hurrah! The second shot also took effect and the bird last in the line flopped helplessly on its side in the water. Another double and they were going like the wind, too. One dropped without a struggle.

As I pushed the old scow from beneath the bushes the 3 remaining ducks were just disappearing in the blue distance far up the lake. I picked up the birds and paddled back to the blind well satisfied with myself and my little Syracuse gun.

Quiet reigned once more. The only remaining signs of the exciting moments just past were the birds lying at my side and a faint odor of burnt powder which lingered around my gun.

Directly opposite me on the other shore a clump of pussy willows nodded to and fro, and as I sat watching the stretch of blue water, first to the North and then to the South, I was suddenly attracted toward those willows by an exquisite burst of melody. On the very topmost branch a little song sparrow was perched, his head held back, and his whole strength thrown into the rendering of the song, so small in itself and yet so clear and sweet that I fell quite in love with the sober-colored little singer and became so deeply engrossed in watching him that I was completely taken by surprise when 2 more black ducks swept into view nearly opposite the blind. With a jerk my gun came to my shoulder, but as the report awakened the echoes I saw that in following the ducks my gun had been brought to bear on the pussy willows, and my friend had fallen from sight. The ducks were gone, but 2 or 3 tiny feathers floated up from the willows, telling of the tragedy of the little singer's death.

I paddled the old scow out again, crossed the channel, and after a short search found him lying still, his bill opened, and drops of blood trickling out, as though he had died in the midst of a song. One shot had struck him in the side. The very stillness seemed sad as I again took my seat behind the blind, wrapped the sparrow carefully in my handkerchief and put him in my hunting coat.

A duck was coming, a solitary old fellow, and he looked as big as a goose. I was ready that time and waited patiently until he came opposite.

Bang! Bang!

He was hit hard, but up, up, he flew, 50, 100, yes, 200, feet, and then his strength gave away. Those untiring wings, which had carried him back and forth from the cool waters of New England to the sunny rivers of the South, could soar no farther; his head drooped and straight into the lake he fell, dead. He was marked and colored beautifully and as I held him up with the others I felt well paid for the time spent in the blind; though sad at the thought of the little fellow in my pocket.

I trudged across the hills toward home with a growing appetite for dinner and a keen appreciation of the possibilities of obtaining a good one from my game bag.

As I sit at my desk writing and look up at the mallard drake and the little sparrow beside him in the cabinet, the vision of that spring morning comes before me, and again I see the quiet lake, the nodding willows and wooded hills; but above all there floats a clear, sweet song, now hushed in the sadness of a little tragedy.

THE SICK MAN'S REQUEST.

A. L. VERMILYA.

Take me back toward the sunset, to the mountains of the West,
Where all nature, sweetly smiling, breathes of quietude and rest.
Let me see again the foothills, let me hear the coyote call,
When the Western day is dying and the shades of evening fall.

For the city's clamor hurts me, and the thick air of the street
Sweeping in my open window chokes me with its dust and heat;
And I think and dream of summers in the days of long ago,
Till my heart is torn with longing for the scenes I used to know.

Then I see a line of wagons crawling slowly o'er the plain,
Hear the shouting of the drivers, hear the maidens' songs again;
And the camp beside the river, when the sun was going down,
Wakens fond and pleasant mem'ries long forgotten in the town.

Slow the journey o'er the prairie, with the hot sun overhead,
Still toward the land of promise hour by hour the pathway led;
Every day fresh wonders opened, every mile brought something new,
And our weariness quick vanished when the mountains came in view.

Take me back toward the sunset, to the mountains of the West,
Where all nature, sweetly smiling, breathes of quietude and rest.
Let me see again the foothills, let me hear the coyote call,
When the western day is dying and the shades of evening fall.

"Beg pardon," said the long haired visitor, "but is there a literary club around here anywhere?"

"Yes," replied the editor, significantly, as he reached under his desk. "Are you a literary man?"—Catholic Standard.

SOME HUNTING DAYS.

HOWARD CARL.

The deer hunting season would open August 1st and as peaches would not be ripe until about the 7th there would be a week in which I could hunt, so I determined to spend the time in that way.

I lived about 3 miles from the hunting ground, which necessitated my getting up at 3 a.m. in order to be there by daylight. I had been out several times without seeing game of any kind, or even a track, when one morning as I came up over the top of a ridge, I saw a coyote trotting along in the trail about 100 yards away.

I whistled as I threw the gun to my shoulder, and as the brute stopped I pulled the trigger. I miscalculated a little and the bullet struck just in front of him. I threw in another cartridge and fired for a point where the trail entered the head of the canyon. The bullet and the coyote got there about the same time, and by the dust that was raised I thought I had him; but no, I soon saw him making tracks far down the canyon.

In a big brush patch at the bottom of the ridge I shot the heads off 2 bush rabbits and went home. I was thoroughly disgusted with deer hunting and gave it up a while.

It was September 20th before the last of the peaches and prunes were gathered. There were still 10 days of open season left, so one morning I picked up my 32-20 rifle, and with a lunch in my pocket started out. I had determined to make a day of it that time, hunt in a new country, and hunt until I found tracks at least.

The sun was well up when I got to the top of the ridge. As I was walking slowly along I heard a rustling in the leaves, and at the end of a patch of sage brush, I saw another covote trotting up the trail. I held just ahead of him and fired, but did not know anything about a sharp turn in the trail around a big rock. The bullet went singing off the rock, and the coyote wheeled like a flash and ran.

He went through a little clump of timber and came out about 75 yards below me, broadside on. He had not seen me at all. Pop! Pop! Pop! went the little 32 and the coyote again disappeared around a friendly curve. I had gauged his speed well, as every shot went directly over his back, but I had not held low enough.

I had not gone far after my adventure with the covote before I saw a few deer tracks. I followed the trail, which led me down into the canyon and up the opposite ridge. I had climbed about half way up, when I saw, on the ridge I had just left, 4 deer. Hoping to get near them I crawled into a small gulch, and down that to the big canyon, taking care to keep the deer between me and the wind. Then I began the ascent of the ridge.

I got where I thought the deer ought to be, but could not see them until one saw me. He made a few jumps and stopped to look. I aimed just back of the shoulder and fired. As he started to run I saw his tail flop and I knew I had hit. I fired again and he jumped into the brush and disappeared. I heard a great rustling in the brush and hurried around the end to catch the other deer as they came out. They did not come, so I went back through the cover.

I had not gone far before I saw a deer in a little clear place about 75 yards away. I immediately fired and he started to run. I saw he would give me a chance for another shot as he passed through a small, clear place and I covered the opening. As he appeared I fired and down he went.

I went back into the brush to see if I had killed the first one I shot at. As I did not find him I returned and dressed my deer.

After doing that I concluded I would have a drink before starting home, and as I was going through the brush again I found deer number one in a heap by the side of a log.

That was more than I had bargained for. Talk about Friday being an unlucky day and 13 an unlucky number! That was Friday and I had left home with just 13 cartridges.

I dressed the deer and carried it where the other one was. They were both yearlings and weighed about 75 pounds apiece. I put one over each shoulder and started, but I soon found that would not work, so I hung one deer in a tree and toted the other. As I had to carry him down one ridge and over another I was almost exhausted when I got him where I could reach him with the buggy.

I did not want to leave the other deer, nor did I want to go after him alone, so I went to town that evening and related my story to a friend. He immediately picked up his gun, climbed into the buggy and went home with me. We were out by 3 a.m. and by daylight were on the ridge. As I had had plenty of shooting I let my friend go ahead. When we reached a point about 600 yards from where I had

hung my deer we saw a big buck about 200 yards away. Bert fired, but shot too high, and the buck never moved; another quick shot, which fell short, and our buck left for parts unknown.

The following week I went out several times, seeing fresh tracks, but no deer. I determined to quit hunting for the season, but one morning a neighbor, Frank C——, came with a buggy to take me hunting. I did not like to disappoint him, so I went with him. It was after sunrise when we drove into the mouth of the canyon where we intended to hunt. Agreeing to meet at a certain place, we unhitched the horse and started, Frank taking one side of the canyon and I the other. I soon saw tracks and followed them until I found they were taking me high on the ridge and away from the place where we were to meet, so I struck around through the timber on the side of the ridge. I finally got near the place where we were to meet, but the point was so steep I could not get down. After spending some time looking across the canyon, in the hope of seeing Frank, I decided to go back to where I had left the tracks.

As I was going slowly along, a spike buck jumped up in a patch of sage brush. I could just see his head and the top of his back. I fired quickly and overshot him. He jumped over the top of the brush, but as he did so I fired again and knew I hit him that time.

He ran into a small ravine full of brush, which led into a large brush patch. I stood a few minutes, thinking he or another deer might start over the top of the ridge, but as none appeared I went into the brush where I had seen the deer disappear. Not finding him I waited some time on the hillside and finally saw my buck going out at the lower end. Pop! pop! pop! and he stopped.

When I cut his throat hardly a drop of blood flowed, but when I dressed him I found him full of blood inside. My second bullet had entered back of the ribs, ranged forward, broken 2 ribs on the other side and passed out. Of the other 3 shots, 2 had taken effect; one on each side of the back bone on the top of the rump. I packed him down to the buggy and waited for Frank, who soon came along.

He had seen a deer but it was nearly 700 yards away, and by the time he got around there the animal had gone.

There were a few more days of open season left, but as I had killed the limit I did not go out again. I have the big buck listed for next year, but I want to try him with something that has more shocking power than a 32-20; a Savage will do.

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THE ONLY MUSK-OX IN CAPTIVITY.

ADIRONDACK GUIDES.

THOMAS G. KING.

To one familiar with the guides and hunters of the West the famous Adirondack guides are both a surprise and a disappointment. Last summer I wandered about the Adirondack woods and lakes from July until November and made the guides a study.

These men became famous through the writings of prominent *litteratcurs* who have visited the North Woods. A person may be eminent in the professional world without being able to distinguish between good guides and poor ones. The transition from the routine of city life to the freedom and pleasures of the wilderness is delightful, to say the least; and those who experience that change are too apt to lavish on man the thanks due to nature. Such books as "Little Rivers," "Camping in the Adirondacks" and "Brown Studies," are but a few of the delightful and charming volumes which have been written about camp life in the picturesque Saranac, Tupper, Placid or Ampersand regions. Those books have exalted the guides, and, it seems to me, unjustly so, because only a few of the older woodsmen are of the types described in them. The fishermen and camp laborers who hang about Adirondack hotels and villages fall far below the ideal ascribed to them in books.

Unquestionably, camp life to day is totally different from that of 20 years ago. Then the tourist came with his fishing and hunting outfit and was met by the same guide who had served him for years. Contrast a season now in the Adirondacks with the good old time to which I refer. A city man coming here to spend a few weeks or a month, must bring 5 or 6 trunks. The social gaieties in which he must participate are, of course, not on so large a scale as those of the city. Nevertheless, either he or the members of his family must attend parties and receptions, be well posted in golf and tennis and, incidentally, take an interest in amateur theatricals. Occasionally, he may vary the monotony by taking a short row on the lake. The guides of the leading hotels receive $4 a day just as they used to 20 years ago, but they have practically nothing to do. If the visitor decides to go on the lake, he starts at 9 or 10 a. m. and returns for dinner. Even if he takes a lunch with him, he is back by 3 or 4 in the afternoon. Not only does he pay the guide's wages, but when he leaves the hotel he gives the guide a tip according to the dimensions of his pocketbook or his generosity. As a natural result, the guides are spoiled. As no one wants to visit the real wilderness and forego the luxury and social pleasures of the hotels, so the guides of to-day know only the lakes, rivers and short carries over well traveled roads from one hotel to another. Outside of these beaten paths they know nothing.

This is well enough for those who would rather play golf than catch trout or shoot deer; but I contend this does not warrant the application of the term guide to men who are really camp laborers. These men would starve if called on to do guiding in the Rocky mountains.

Upper and Lower Saranac lakes are surrounded by camps, some of which cost upwards of $100,000. Scarcely one cost less than $10,000. The guides procure supplies from the lake steamer or at the railroad station, take care of the children, go for the mail and do menial services. Years ago it was common for a party of guides and sportsmen to make the trip to Plattsburgh down the Saranac river, a distance of nearly 100 miles. From Lower Saranac to the head waters of the Hudson, or through the Fulton Chain, or North to the St. Lawrence were also favorite excursions. One or 2 trips to Fulton Chain were made last year, but no one went down the Saranac.

Amusing stories of the greed and incompetence of some guides are told by the old timers who winter in Saranac village.

A wealthy woman living at a hotel on Upper Saranac desired to buy a coach horse to use in Boston. Why she voiced her desire in the presence of 2 or 3 guides, and what led her to think she could find blooded stock in the woods, passes my comprehension. Two of the guides went to Saranac village and bought an ordinary plug for $40. They put in 2 or 3 days brushing and polishing his coat, gave him certain stimulants and led him to the hotel. The woman paid them $175 for the rejuvenated skate.

There are but few angle worms procurable on Upper Saranac. The crew of the little steamboat employ a boy at the South end of the lake to dig bait as required. They pay him 10 cents a can. Mr. Blank, of Washington, is a wealthy man. He has a number of children and occasionally they amuse themselves by catching perch from the hotel dock. He told a guide to keep the youngsters supplied with bait. Two months later a bill was handed him for 20 cans of worms at 50 cents a can. "Great Scott," said he, "I made my money

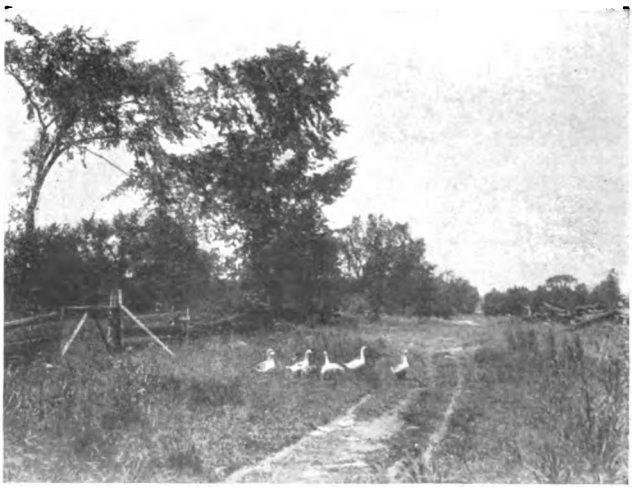
by hard work, and when a boy I would have been glad to get 5 cents a can for worms. It seems to me the price has gone up."

"Yes," replied the guide, who had a reputation for wit; "the price has gone up but the worms have gone down."

I have even heard of guides selling deer which their employers had shot. An old timer living near Bloomingdale told me a story bearing on this subject. He was employed by a New Yorker to go deer hunting. They were out several times, but saw no game. Finally, the sportsman succeeded in shooting a good sized buck through the stomach. Of course, the deer ran and left but a small trail of blood. The guide told his employer it would not be best to follow the deer; if left alone, it would probably die and they could get it in the morning, whereas if followed it might run miles. The man had had previous experience with guides, and said:

"Oh, no you don't. Not on your life! If I don't trail that deer to-night you will get him and sell him before I come in the morning."

The guide raged; at first to no purpose. Finally he prevailed on the man to trust him. They returned to Bloomingdale, and spent the night. In the morning they visited the scene of the shooting and found the buck, dead. The sportsman made an apology; but he afterward said he would have wagered that the deer would not be there.



AMATEUR PHOTO BY W. J. TOPLEY

THE OLD HOMESTEAD.

Made with Bausch & Lomb Plastigmat Lens.

SALMON FISHING ON CHARLESTON LAKE.

E. A. GEIGER.

One of the most picturesque lakes in Canada is Charleston lake, 17 miles from the imaginary line dividing New York State from the Province of Ontario, at Brockville. Mr. B. Loverin, the genial owner of the houseboat Lah-ne-o-tah, and a member of the Reporter Hunt club, promised the club a good time with the salmon* as soon as the ice went out, and accordingly April 28 was appointed for the members to meet at the houseboat. Five of us left Brockville at 3.30 p.m., by the Brockville & Westport Railway, and reached the lake at 5.30. There we were met by our host, who gave us a hearty welcome and announced everything in readiness for the salmon.

In the morning lots were drawn for positions in the boats. Mine fell to the boat with Byron Loverein, a son of our host, and a member of our club, and my brother Adolph, while the other boat held Messrs. Charles Stagg, Leonard Cossitt and George Beecher. We got an early start and soon had 4 lines in the water. We were not out of sight of the houseboat when a shout from the other boat announced the first strike. These salmon never give up until landed, and after a good fight the anglers brought in a beautiful 8-pounder. Hardly had they landed their fish when my brotner got strike and reeled in a 6-pound salmon. Getting among the islands, of which there are 123 in the lake, we lost sight of the other boat until noon, when we returned to the houseboat and found our friends already in, with 5 splendid salmon while we had but 3. These salmon weighed 3 to 9 pounds each.

After noon we again started out, in different directions, but as the wind had increased, and was blowing from the South, causing quite a sea, it was difficult to keep out in the open water. We kept closer to the shores and did not have as good luck as in the morning, getting only one salmon each, of about 5 pounds. On our return Charlie Stagg related an experience they had with black bass. While fishing among the islands they ran into a school of these fish and as fast as they could put out their lines 8 small mouth black bass were hooked, none weighing less than 4 pounds. As this was in the close season the bass were carefully returned to the water; still it gave us an inkling of what sport we might expect with the bass after June 15.

The next day the wind continued strong. Byron Loverin decided to remain in camp and repair some of the havoc the storm of the week before had wrought on his floating boathouse, and my brother elected to remain with him, so we had but 2 men in each boat. Just as we were ready to leave the houseboat Messrs. Ross and Osborn, of Brockville, rowed up and exhibited a fine 11-pound salmon they had landed off the high rocks a few minutes before. We had hardly passed the first point of land, Derbyshire Point, when we hooked and landed a 5-pounder. We soon lost sight of the other boat and decided to go Southeast, under the high bluff shore, to be somewhat protected from tne wind, and to remain until late in the afternoon. At 12 o'clock we landed at a cold spring, ate our lunch, then climbed the high cliffs on Crawford's Point, at the mouth of Leeder's creek, where we had an excellent view of the lake for miles in all directions. On our return we had 3 and the others 4 salmon.

After supper we strolled over to Cedar Park, to arrange for a rig to take us to the station in the morning. While we were there Mr. R. B. Reading, of Lambertville, N. J., came in with 6 salmon weighing respectively 3½, 4, 8½, 9, 11 and 12 pounds. The crowning event of the day was when Mr. Osborn came in with a salmon tipping the scales at exactly 14 pounds. These are not extraordinary catches for Charleston lake, as the weather was not favorable, either day. The limit according to our fish and game laws is 5 almon per rod per day, and none of the boats reached their limit.

It is impossible to describe the beauties of Charleston lake. It is about 8 miles in length and one-half mile to 6½ miles in width. There are few shoals and no marshes. The water runs to 300 feet in depth, and is exceedingly clear, being fed by many springs. The lake contains 123 islands, on many of which are fine summer cottages owned by Americans and Canadians. The shores vary from grassy slopes to high rocky bluffs rising almost perpendicularly 50 to 200 feet. There is first class hotel accommodation, and there are plenty of good guides or oarsmen to look after visiting sportsmen.

*The mentioned fish is probably Atlantic salmon, *Salmo solar*.—EDITOR.

AMATEUR PHOTO BY ANDREW EMERINE, JR.

A REAL FISH STORY.

Highly commended in RECREATION'S Sixth Annual Photo Competition.

AMATEUR PHOTO BY J. E. TYLOR.

THEY FOUGHT TO A FINISH.

Made with Manhattan Camera.

A BEAR AND A BATH.

W. H. WRIGHT.

The story of a buffalo hunt in RECREATION reminds me, in some ways, of a hunt I had at one time which resulted in the death of my first grizzly. Not that I had anything but the bear to fight, as the major did, but I had to take to a stream for safe keeping until the excitement blew over.

For several years I had hunted and killed deer and black bear, with such success that I was anxious to try my hand at something larger, and one summer I fixed up a trip for the hills with that object in view. For some weeks I camped around through the hills looking for something that would suit my taste, until I had spent most of the summer, had traveled the Bitter Roots from West to East and had started on the home stretch. I then thought if I could not get a grizzly, I would at least have an elk; so I switched from the part of the country I was in, followed a long ridge running West, and at last made camp in a bottom beside a large stream, which ran swift and cold from the snow banks in the mountains to the North and East. At the point of a long open ridge coming in from the North and West, were 15 or 20 acres of open bottom, and on the river bank was a spring all cut and dug out by deer and elk that used it as a lick. I made up my mind to get an elk there. Around the spring and along the river bank grew small brush, 3 or more feet high, and lying in this brush, 50 or 75 feet from the spring, was an old log. There was no standing tree of any size within a quarter of a mile of the spring, so I selected a position behind the log. I went to the spring early, grubbed out some of the brush with my knife, fixed up a comfortable place to sit or lie, and made everything ready for the killing. The gun I was using was an old model 44 Winchester, with which I had had some trouble in other hunts, but I could put the slugs where I wished them when it did work, so I kept hanging on to the old thing. The extractor had become so badly worn that I always had to put my thumb on it and bear down to bring the shell out. Sometimes when I was on the verge of the ague, I forgot to do that, and then I had trouble. The extractor not only failed to throw out the shell, but it brought up another cartridge, and as there was no place for it the old gun was useless for the time being.

The river bank along through the bottom was 3 or 4 feet high, and the water had washed away the loose earth for some distance underneath the bushes along the bank, leaving the roots hanging down into the water. It was a warm day in September, and I left camp without any coat, thinking it would be warm enough until I should get my elk, or as late as I could see to shoot. I did not know much about game using licks then, or I should have known that they do not go to licks every day at that time of year. I have found out all these things now, and know enough to take a coat with me when I go to watch for game.

I commenced the watch, and until the sun got low I was not uncomfortable. Later I became chilly and soon my teeth began to chatter. I looked at my watch and gave that elk just 5 minutes more to show up. It was nearly sundown, and I was getting to a point where I would not stop much longer for all the elk in the country. I raised up to take one more look at that point of the ridge where the main trail led to the spring. After looking the hill all over I could see nothing, and was feeling blue, when on glancing up stream and to my right I saw an old grizzly coming around the point of brush 125 yards away. My teeth quit chattering at once. I dropped down behind the log, as the bear was coming my way and I wanted him close before I opened up on him. He was my first grizzly. After allowing him what seemed a long time to get to the spring, and as I could not hear anything of him, I raised my head and peeped over the brush. He had evidently been stopping to think matters over, for just as I looked he dropped his head and started my way again. He was within 75 yards and I thought he could not get away from me, as I could get in several shots before he could get out of reach; so rising, I aimed to put a slug between his neck and the point of his shoulder.

At the crack of the gun that old bear made one bound into the air, gave a bawl like that of an overgrown calf, and started at a lively gait for my bunch of brush. I had not figured on that. However, I did not feel disappointed for it would give me time for more shots, and I could see that the grizzly hide would be mine. Bringing the lever forward for another cartridge I yanked it back, and lo! I had forgotten to thumb the cussed thing! There I was, with not a tree in sight, with a useless gun in my hand and a wounded grizzly coming my way! I did not feel so anxious just then for him to get up close so I would

be sure of him. It looked as if other hide than the bear's would be decorating landscapes.

I looked the situation over, threw the gun, and made for the river. In about 2 jumps I went over the bank. As I struck the water I saw where it had washed out the soil. Catching a root I drew myself close under the bank and waited for the bear to come in after me, thinking when he jumped he would not see me. That would give me a chance to get out and recover my gun and possibly reach a tree. Gee, whiz! The water was cold. I had to lie down in order to keep under the bank; and I was nearly frozen before I took to the water. I had to hang to the roots to keep from washing down stream. The water made such a noise that I could not hear the bear and I did not dare look up for fear he was watching for me. There was nothing to do but wait for something to happen.

After what seemed half an hour, but which, I suppose, was about 2 minutes, I tried to crawl up stream a short distance, and then look to see what had become of Mr. Bear. The water made so much noise against my neck, that I thought the bear would be sure to hear me, so I gave up that idea and commenced to back down stream. That worked better, as going with the current I made no noise. When 30 or 40 yards down stream, I raised up part way, and worked some of the ice water out of my clothes. Then I crawled out into the brush and listened for the bear; but not hearing anything, I proceeded to scrape out some more water Then I quietly raised up so I could look over the brush but could see nothing of bruin, so I crawled along toward the log, where I had left my gun. I have made many sneaks for game, but never with more forethought than I made that one. I reached the log and scarcely dared breathe for about 5 minutes. Then I began to look for my gun and in my haste to give the bear all the land there was between him and the river I had thrown it on the opposite side of the log!

I raised up on my knees, and as the bear did not charge me, I screwed up my courage and stood up. There lay that blooming grizzly, within 30 feet of the log, dead! I had taken my bath for nothing, but I wasted no regrets, for I think the situation would have induced almost anyone to take a bath, even if the ice had to be broken to do it.

I told the fellow at camp that in crossing the river I fell in. As camp was on the opposite side of the river from the lick, I got off without his knowing I had been mixed up in any way. Besides, I told him that grizzlies were as easy to kill as black bears; that it only took one shot to kill this one. That was my last hunt with the old gun which had long outlived its usefulness. I bought a new Winchester as soon as possible.

TO A MIGRATORY FOWL.

A. D. NICHOLS.

High in the ethereal dome of darkest night,
While quiet earth is wrapped in pleasant dreams,
You take your steady, swift, instinctive flight
Toward the Southland's vales and reedy streams.

Pursued by blizzards from the Northland's peaks,
By spectres of a coast ice-bound and drear—
Before you, sunny fields and singing creeks,
And rest upon the water still and clear.

Blest fowl! when life with sorrows is beset,
Oh that we mortals, too, could wing our way
To lands of peace and rest, and there forget
The sorrows of our cheerless Northern day.

HUNTING QUAILS AND FINDING COONS.

E. M. DORSEY.

Various coon stories in recent numbers of RECREATION have recalled vividly to my mind an experience in Boone county, Missouri, in 1872.

Our party left the farmhouse, where we had been quartered over night that we might be early on the shooting ground, at 4 o'clock one November morning. We were equipped with shot guns, several pointers and setters followed us, and we purposed shooting quails if we could find any.

Before going far we discovered that our force had been augmented by a volunteer in the shape of a venerable and sleepy looking long eared hound of giant frame. His name, as we learned later, was Sing, and he was the dearest possession and constant companion of the youngest scion of the household we had just left. We wasted much good argument in trying to convince Sing that *a* hound could but be *de trop* in the company of bird dogs and bird hunters. A resort to sticks and stones proved equally futile. We must have succeeded, however, in wounding Sing's pride, and he evidently decided to show us that he was worth a whole bunch of bird dogs.

He dashed off into the brush and before we had fairly resumed our march, was heard giving tongue in lively fashion. Apparently he had treed something. Then the crowd, of course, had to go to see what that old fool dog had found.

At the scene of action, Sing was doing stunts around an old dead oak. The tree was about 5 feet in diameter. At 30 feet from the ground it parted into 3 great limbs, all broken off at 10 or 15 feet from the trunk. One of the party insisted he had seen, as we came up, a coon go into the end of one of those branches. It was so dark at the time that we inclined to question the statement. That made trouble. The offended individual swore he would not go another step until his veracity had been demonstrated. Finally one of the boys was sent to the farmhouse for axes. All the while old Sing was dancing about the tree like a crazy Indian, yelping incessantly.

When the messenger returned, with him came the old man of the farm and his 2 sons, tall, spare, longlegged chaps, each toting an ax. After a good look at the tree, the farmer struck his ax into a log, sat down beside it and drawled:

"We-e-ll, Sing sez ther's coons up thar, an' I'll bet my Sunday clothes thar is, but I don't feel no call to tackle that air dry snag. I ain't lookin' fer hard labor."

The deadlock was broken by Rube, the proud owner of Sing, who discovered a tall young red oak a few yards higher up the hill. Instantly he formed a plan of attack. The young tree was felled, and dropped into the forks of the snag. Then Rube peeled off his jacket and shinned up the red oak of the dead tree. The first branch he examined was solid to the core. On reaching the end of the second he gave a whoop of triumph.

"Ther's a hole here big enough to hold a carload o' coons," he cried: "But they're 'way down an' we'll have to smoke 'em out.

Close examination revealed a thin place in the trunk, near the ground. A few blows with an ax opened it up, and a smudge fire was started in the hole.

Rube mounted to the top of the branch and hung there, one foot resting on a knot and one leg hooked over the limb. Every little while he would draw himself up, look down the hole and yell, "More fire! More fire!"

It was then broad light, and all eyes were, of course, fixed on Rube and his performances. Presently 2 heads appeared simultaneously above the hole in the branch, Rube's and a coon's. As the latter braced himself for a saving rush, Rube dropped back, hanging by his legs and left arm. The coon emerged, snarling defiance, and instantly received amidship an upper cut from Rube's right fist, that sent the poor beast flying into the air. Rube had on a great dirt-colored felt hat with a wide, drooping brim. Before the poor coon had fairly started on his flight groundward, Rube had clapped that hat over the hole in the limb and was yelling:

"Thar he comes! Go fer him, Sing, go fer him! Sing's got him! Sing's got him! Far'well. Mr. Coon!"

Sing despatched the coon even as his master spoke, and looking upward, howled for more. Look out below!" cried Rube, lifting his hat from the hole as one would raise the lid of a teapot. Out boiled another coon, received a body blow and sped swiftly to Sing's welcoming jaws. Again Rube on his airy perch chanted the death song.

"Sing's got him! Sing's got him! Far'well, Mr. Coon!"

This performance continued until 5 coons had been despatched by the wireless method to Sing's mouth, and thence to their long home. That exhausted the population of the hole, and though Sing velped his desire for further employment, his work and his master's song of victory came to an end.

The crowd enjoyed the affair immensely, and vowed it knocked quail shooting silly. Thereafter they often called on Rube and Sing to furnish sport. They did not require them to give bonds for faithful performance of contract, either.

DEER HUNTING IN ARKANSAS.

F. M. HOUDLETTE.

In a hotel in Arkansas I chanced to meet 5 hunters who were lamenting their inability to find game in quantity to suit them. I offered to supply a camp outfit and take them to ground where I could show them 3 deer a day for a month. If I failed to do so, I agreed to pay the expenses of the trip; but if game was as plentiful as I said, they were to pay all expenses and give me $50 for my services. The bargain was soon made. I telegraphed Tom, my partner, to meet me on the down train the next morning. Then I got my things ready and had them taken to the station.

In the morning we all boarded the train with a wagonload of duffle and my favorite dogs, Dynamite and Stranger. At 4 p.m. we were set down at Walnut Lake, Arkansas, and hired a wagon and span of mules with which to complete our journey. We drove 15 miles that night and pitched a temporary camp. A little before daylight, Tom and I got breakfast and awoke our boarders. By sunrise we were again on the road, and it was late in the evening when we reached our hunting ground.

Tom and I spent the next day in preparing our camp for the winter, as he and I, at least, were billed to stay until spring. Our boarders went out early. About noon they returned, tired to death. They said they had not seen a thing, not even a squirrel. They had, of course, moved so fast and so noisily that everything ahead of them had been driven to cover. I tried to tell them this, but they would not listen, and even hinted that they thought all the game of the region was in my eye.

Finally I said I could go out at 4 p.m., kill game enough to last us a month and be back in camp by dark. They jeered at this; and to convince them, I started out, with Dynamite at my heels, I went South toward Bear lake, purposing to hunt in the switch cane around it. When I had gone about a mile I noticed fresh sign and stopped to watch. Signaling Dynamite to lie down, I walked 50 yards from him and stationed myself beside a large tree.

In a few minutes I saw 3 does and a 6-point buck feeding about 300 yards away. The wind was favorable and I determined to stalk those deer. As most deer hunters know, when a deer is feeding he will never raise his head without first shaking his tail; nor will he lower his head without another flirt of his appendage. Before the buck looked up I had moved 4 steps and put a big tree between us. In that way, watching my chance when the buck's head was down, I got 100 yards nearer. The rest of the distance was over open ground, yet by careful crawling I gained another 100 yards. Then lying flat, I got my Savage to my shoulder and put a bullet through the buck's heart.

The does ran a few yards and stopped; 2 side by side and broadside to me. I had been told that a Savage would shoot through almost anything. I took careful aim at the 2 does and fired. Then, without waiting to see the effect of my shot, I fired again at the third doe and dropped her. Of the 2 does standing together, the one nearest me fell in her tracks; the other ran 40 or 50 yards before falling.

I had arranged with Tom to come out with the mules if he heard any shooting, and before long he made his appearance. We packed the 4 deer to camp, and the amazement of our boarders was laughable. Thereafter they were willing to admit that they did not know all about hunting. They stayed with us 2 months and soon learned to find game for themselves. Tom and I remained in camp after they left, and put in our time trapping.

AMATEUR PHOTO BY C. C. SPEIGHT.

DEER MOUSE.

HUNTING WOLVES IN EASTERN NEBRASKA.

ARTHUR L. ANDERSON.

Wolves and coyotes have again descended on the fold in Nebraska. Scarcity of feed on the Western ranges and consequent diminution of the herds and flocks, together with the increasing warfare that has been waged against them, have driven these outlaws of the genius *canis* nearer to civilization the past winter than they have come in many years. At one time coyotes were as abundant in Nebraska as prairie dogs and jack rabbits; but with the recession of the frontier they also receded and were nigh disappeared.

Whatever the cause wolves and coyotes are again plentiful in that State. Farmers do not relish this propinquity, and have taken active steps to induce the intruders to retire.

Ordinary methods of dealing with the pests have proved inefficient. The offer of bounty has served but to induce the unscrupulous to breed wolves for the purpose of selling their scalps to the public. A few years ago a bunch of enterprising cowpunchers gathered up hundreds of wolf scalps in Montana and Wyoming and shipped them to Eastern Nebraska and Western Iowa, where several counties were nearly bankrupt before the fraud was discovered.

Such things tended to discourage the practice of paying bounties and left it incumbent on the farmers and stock raisers to fight the wolves themselves. What was a popular sport in the early days of the State has been revived, and grand wolf drives are being carried on in counties where they have not been known in many years.

One of the most primitive methods of hunting was the formation of a cordon of men around a specified area, who gradually drove to a common center all animals caught within the slowly narrowing circle. This practice was followed before the first dog ceased to be a wolf. When the Nebraska farmers decide on a wolf drive notice is given to all residing within the area to be beaten over, usually a space about 20 miles square. Every able bodied man and boy joins the hunt, for the fun of the thing is ample repayment to anyone with a drop of red blood in his veins. Captains are chosen to control the sides; always 4, for the territory is marked in a square, and the beaters approach along its 4 sides. Ample precaution is taken to secure the safety of all concerned from anything but unavoidable accidents. No fire arms save shot guns are allowed; rifles and revolvers being too dangerous. In some cases even the shot gun is tabooed, the killing being done with clubs.

On the day appointed the sides set out. The captains agree as to the points where the columns shall converge, the aides are instructed in their duties and the hunt begins in earnest. Slowly, steadily the lines move toward the place of meeting, which is of necessity an open meadow or field, driving everything before them. As the area is cut smaller and smaller the alarm of the enclosed animals becomes frantic terror. Prairie chickens, quails and other game birds, rabbits and the like, flee in wild dismay from the approach of the human walls; while the wolves, seeming to realize the trap in which they are caught, dash back and forth in search of shelter or a place to escape.

Those that try to break through the cordon are shot as they run. Around each of the 4 sides stands a solid wall of men and boys armed with every weapon with which a wolf may be killed, and yet which is not essentially dangerous to the users or their companions. Here the dogs are brought in play. These are generally strong hounds, who can easily cope with a wolf in open fight. When the dogs are set to work the wolves are in the extremity of fear or of desperation. Some rush wildly to one side or the other of the square that has caught them, only to be shot. Others are pulled down by the dogs. No matter whether they fly or fight, death is their portion. Sundown of the day of the wolf drive finds the farmer homeward bound, rejoicing that a dozen to 20 more of his 4-footed foes have died.

"Fifty dollars for such a little dog!" exclaimed the possible buyer. "It doesn't weigh over 4 pounds."

"I know, mister," said the dog dealer; "but I'm not offering it to you as sausage." —Judge.

THE OLD DRUMMIN' LOG.

BRAD L. HUBERT.

Many autumns now have vanished since my
brother Tim and I,
While a-milkin' in the mornin', jest as day
was drawin' nigh,
Heard a bit of pleasant music kinder floatin'
through the fog;
'Twas the boomin' of a pa'tridge on a well
known drummin' log.

Quick we left the tiresome milkin', skippin'
quickly from the stall;
Softly stole into the kitchen, took the
musket from the wall;
Then we hustled off like Injuns on a light
and stealthy jog,
Down toward the cheerin' music wafted
from the drummin' log.

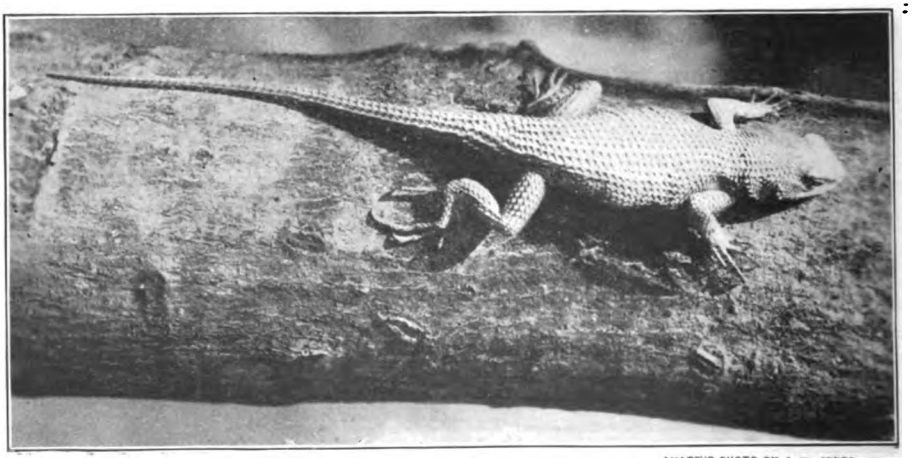
On all fours we went a-creepin' fer a dozen
rod er more,
Gettin' thistles in our fingers, an' our
breeches badly tore;
But we slid along with caution, through
the damp and through the fog,
Fer we heard the steady boomin' comin'
from the drummin' log.

Then we did some cautious peekin' through
a clump of little trees;
Gee! there set our feathered drummer, jest
as perky as you please;
So we shoved the faithful musket 'cross a
hummock in the bog,
Allers keepin' of our optics glued upon the
drummin' log.

Glancin' straight along the barrel, brother
took a careful sight,
While we almost quit a-breathen' lest the
bird should take a flight;
Then the shooter pressed the trigger, all
his faculties agog,
An' the smoke went rollin' forward to'rd
the big old drummin' log.

With our hearts jest fairly bumpin', off we
started on a run
To pick up our splendid pa'tridge, never
stoppin' for the gun—
Jumpin' Jinks! what disappointment! all
our bright hopes slipped a cog;
'Twas a knot that we had peppered on that
cussed drummin' log.

Then the pa'tridge jest up an' flew.



AMATEUR PHOTO BY W. JONES, JR.

TAKING A SUN BATH.

MUSKRAT TRAPPING.

J. A. NEWTON.

When the trapping grounds are of considerable extent and game is plentiful, muskrat trapping can be done most profitably by 2 men working together.

Several years ago I joined forces with a veteran trapper known as Shepp; it being our intention to "skin the river," as Shepp termed it, and then haul our boats and luggage to the lakes in our vicinity, moving from one to another as game grew scarce. At that time there was no law regulating the taking of fur animals and we usually began rat trapping October 15. As we intended driving to and from our traps each day, no camp equipage was required. We had only to repaint our boats and color our traps to hide their accumulations of rust. The latter we did by boiling them in a dye made from walnut shucks or soft maple bark. The traps are placed in the liquor after it has acquired a dark color and each lot of traps is boiled 15 or 20 minutes or until they are blackened. New traps will not take the color until they have been used a week or so to rust them.

Shepp and I owned over 100 traps between us, and as most of them were old, many repairs had to be made. Then, when we had cut a quantity of stakes having prongs at the top, we were ready for business.

We were each to take one shore in setting the traps. The South shore, which I was to follow, presented a low, sandy stretch at first, with no grass or material to attract rats. As Shepp's side was exactly the reverse I paddled along slowly, watching his shrewd methods. The first sign noticed was a quantity of droppings which had been deposited on a half-submerged log. Shepp produced his hatchet and chopped a notch under water and just below the sign, large enough to contain the trap when set. He was careful not to knock off or disturb the sign. The notch was cut so deep that the trap when set would be barely under water; the chain was stapled to the log, no stake being required.

"The rat was there last night," said Shepp; "you see the top deposit haint dried a bit. If he had stopped coming, the sign would all be dry."

A few rods farther on, a log showed much sign, but it lay so high a water set could not be made. Shepp is always looking for just such perplexities and is prepared for them. A notch was chopped as before at the point showing most sign and lightly covered with dry, short, broken June grass, which was sprinkled with water to prevent its being blown away. In all cases the trap must be covered by water or grass or nothing can be caught in it.

We then came to high, grassy banks where rats had been climbing and digging up vegetable matter.

"Now, most likely one rat did all that work," said my companion. "They ain't more'n a pair of 'em anyway; so I pick out the places showin' the most diggin' an' set to 'em. A feller not so well posted would set a half dozen for one rat an' soon have all his traps out fer mighty little purpose."

Here the traps were set at the foot of the scratch signs, bedded to set level and at the same time be barely under water, and the chain was staked full length in deep water to insure the rat's drowning before it could twist off a foot.

Before many traps were set out we came to a large bay filled with a rank growth of flags and reeds and containing several houses on which the rats had recently been working, as indicated by material that was still wet. One side of a house is always of a gradual slope. That is the roadway traveled by the rats in carrying up material for construction and repairs. In the fall the trap should always be set at the foot of the slope and bedded level. If the water is shallow it should be deepened by the paddle, to insure drowning.

We found several feed beds, floating masses of chewed flags and grasses, built by the rats to sit on while feeding on flag roots and other food. Traps were set on those and bedded by parting the material until they were submerged. The water was deep and the longest stakes were used. Some well traveled runways led off among the reeds and grass, and traps were set in a few of the most promising ones where they met deep water.

A stretch of wild rice was seen where cuttings and signs were numerous. The water, however, was so shallow that to have set would have insured the loss by foot amputation of every rat caught, as no excavating could be done there, the bottom being hard. There Shepp used an invention of his own. Out from shore, where the water was 3 or 4 feet deep, he lopped down enough grass to form the semblance of a bed, and on that a trap was set with the water just covering it. Six or more of these artificial beds were made, 3 or 4 rods apart.

"There! that'll ketch every rat and they'll git drownded, too," said Shepp.

We noticed a number of burrows deep under water where the banks were high. They were set to by lowering a trap into the entrance. Shepp explained that the trap must not be pushed into the burrow, as it would probably be sprung without catching the rat; nor set too far from the entrance, lest the result be the same.

Said he: "Settin' jest at the entrance the rat'll git caught when he dives down to enter; or if he's comin' out he'll git caught by a hind foot or his tail when he raises."

When animals have had a rest of 6 or 7 months the first night's trapping takes them unawares, as the following morning proved. We set 65 traps, which yielded 34 rats, and 6 more contained feet of others that had twisted up in grass and reeds.

After trapping as much of the river as lay within easy reach, we pulled for the lakes. There the methods pursued were the same as in the river, except that trapping was confined to houses, feed beds, runways, and floating bogs. There were no burrows or logs to trap.

One large lake was so low and miry that we could not trap it, though it seemed alive with rats. There were perhaps 200 houses on its margin. When winter came and the ice was safe, we determined to trap those houses. In winter trapping the house is cut open with a hatchet, no larger an opening being made than necessary, for the frost must be kept out or the diving hole will freeze. When the diving hole does not go down from the nest too abruptly, a water set should be made. If the descent is perpendicular and the nest is the only place to set the trap, it may be set there and covered with cattail down. The stake is placed in the diving hole so that the rat may drown. The opening cut must be carefully filled to exclude the frost, and if there is snow the plug should be banked with it. When traps in houses are not disturbed within 2 days it may be concluded that the occupants have all been caught or driven away.

When spring came we again launched our boats on the river. The signs were then almost entirely confined to logs, snags, and scratch signs in the banks. Each was trapping on his own account and Shepp made the larger catch until I noted his spring tactics. After making a log set he placed a large handful of grass on the log above the trap, and wet the grass to keep it in place. I asked an explanation of this procedure and Shepp said, "Rats notice everything unusual in spring more'n any other time. After the rat that made the reg'lar sign has been caught the females will be drawn by the grass sign an' caught when they climb on the log. Then they's lots of stragglers travelin' in spring that a wad of grass'll be the means of getherin' in if a trap is doin' duty."

Grass was placed on the bank above the traps when setting at scratch signs, and after the first night's trapping, when there is plenty of bait, muskrat flesh or the intestines are posted on a forked stick over the water, a foot from the trap when setting at scratch signs, or are pinned down on the bank just above the trap. This bait lures rats to the trap by its appearance and scent and many a traveler is thus taken that would otherwise swim past. Burrows are usually filled with rubbist in spring and are so little used that the trapper neglects them.

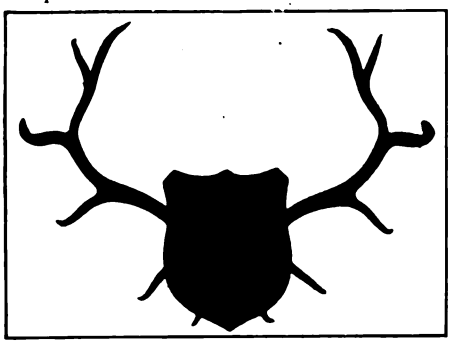
The most vexing thing is the rise and fall of water. If the water is rising rapidly its rate must be guessed and traps set high so that conditions will be right when the game comes along. If the water is dropping, the traps must be set deep. The amount of probable drop is much harder to calculate than the rise. As a rule the traps will be found out of water the following morning; and the signs that were set to high and dry. Signs made during the night will be found below the traps. Lakes maintain a steady head and afford the most satisfactory trapping when streams are changeable. The No. 1 trap is used for rats, and trapping should be done between November 1st and April 1st in the Middle, Eastern, and Northern States. Fall rats usually sell for 3 to 10 or 11 cents; winter, 12 or 14 cents; spring, 12 to 16 or 18 cents.

Flossie was sent to the drug store to get some dyestuff and forgot the name of it. "What is it folks dye with?" she asked. "Oh, various things," replied the druggist. "Heart failure, for instance." Well," said Flossie, "I suppose that will do. Give me 3 cents' worth, please."—Grit.

HERE'S YOUR BEAT!

Speaking of horns, Mr. W. C. Darling, of Henderson Harbor, N. Y., shows a picture on page 194 of March RECREATION, and asks: "Who can beat them?" Here's a pair that will do it.

I parallel the dimensions:



LONGER THAN WILLIAM'S.

	Darling	Kinsey
Spread	53¼	53½
Beam lengths	55 & 56½	56 & 56½
Total beam length across skull	111	119
Longest prongs	16 & 17	23 & 23½

I don't understand how Mr. Darling figures out that if his elk horns had been mounted "with the animal's head between them, their spread would have been 24 inches greater."

The fair way is to base measurement on the natural position of the horns, and Mr. Darling's picture shows that his antlers are mounted in a natural position, or nearly so, as he can see by comparing with mine, which are attached to a section of the skull, just as they grew originally. If I were to criticize Mr. Darling's pair, I I should say that the upper part seems distorted from the natural shape, as if an effort had been made to obtain spread by springing them apart at the tips.

I don't know that "Me and William" have the only horns in existence that beat Mr. Darling's, but if his measurements are correct, each of my prongs beats the Emperor's, just an inch apiece.

Mine are not for sale; just to keep and blow about.

Geo. Kinsey, Cincinnati, Ohio.

Yours is the "only gravel on the train," when it comes to sportsmen's periodicals.

Frank Poindexter, Eugene, Ore.

RECREATION is the best sportsmen's journal in the country. I would not be without it, if it cost 5 times as much as it does. J. G. Randall, Isheming, Mich.

THE WILD GOOSE CHASE.

REV. F. C. COWPER.

The night was dark, the wind blew wild,
The arc lights flickered in the blast;
The wild goose cohorts Southward filed,
To warm lagoons, on pinions fast.

The blinding storm and fitful gleam
Of swinging lanterns in the town
Have wrought confusion in that stream
Of living breasts of eider down.

The leader for the time is lost,
The geese, loud screaming with affright,
'Gainst trees and chimney-tops are toss'd,
A silly host in helpless fright.

Excitement through the town prevails,
And wildly hooting men and boys,
With guns and stones and clubs and flails,
Make night tumultuous with their noise.

But in the morn the tale was told
That but one bird was in the place,
And he was scrawny, tough, and old:
Sole trophy of our wild goose chase.

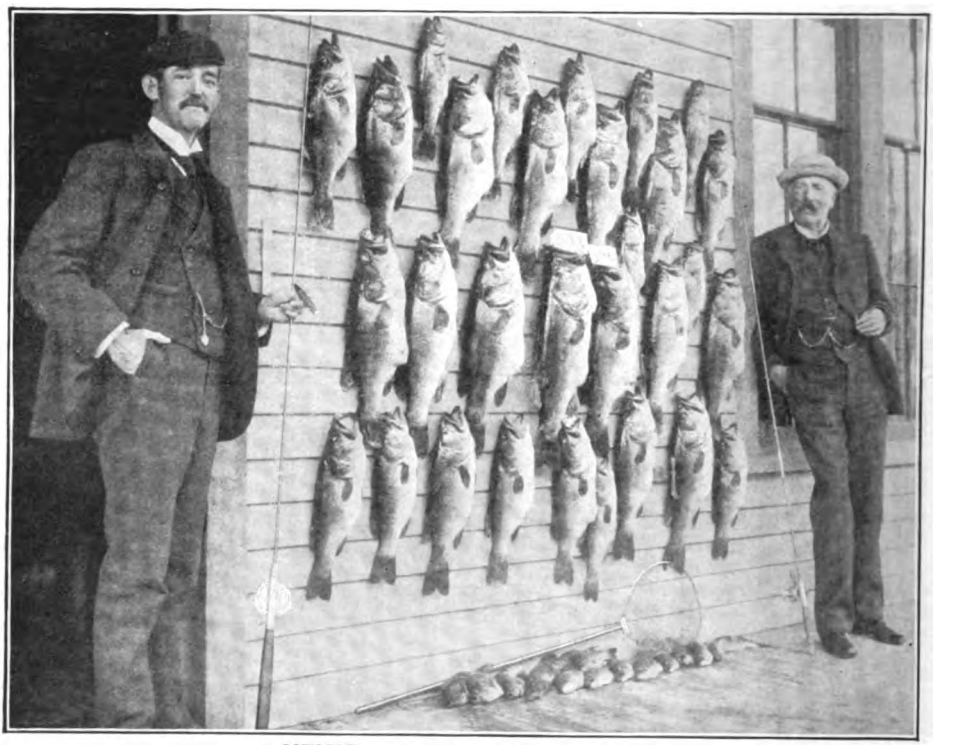
AMATEUR PHOTO BY W. J. HEEBNER.

A MAINE FREAK.

A BUFFALO FISH HOG.

I regret to have to call your attention to the enclosed picture from the Buffalo *Express* of February 23. It shows we have here some of the genuine breed, and I take it that the Mr. Clay referred to is the oldest member of the herd. He at least has to leave Buffalo to show his proclivities. Based on the picture of the Goldfield herd, as posed for a recent issue of RECREATION, Mr. Clay is far more culpable, because while the 4 in that group caught 250 pounds of a well known Buffalo man, Mr. H. M. Clay, who is spending the winter in Florida. He is seen at the right in the above picture, with the fish he caught in one day recently near Sanford, on a 7 ounce rod. They are all large mouth bass. Usually a 2 to 4 pound bass is considered a prize. There are shown hanging up 30 fish, weighing 230 pounds, an average of over 7 pounds. The largest weighed 14¼, the next 11¼, and the next 10; total 83 pounds. In the foreground are several bass 2 to 5 pounds in weight.

Another case of slaughter and vulgarity combined. When will men learn that



A MEMBER OF THE BUFFALO HERD.

of croppies. Clay, personally, and alone, caught over 230 pounds of large mouth black bass. The picture shows 30 fish on the wall and a dozen more in the pile on the floor.

Mr. Clay, no doubt, thinks he has done a great thing, and the local editor seems to consider the feat worthy of presenting to his readers. Of course Clay knows that in this State he could not take in one day so many bass, but probably he would if he had the chance. H. M., Buffalo, N. Y.

Here is what the *Express* said of the picture and the man who posed for it:

Lake Erie fishermen this winter complain that there are no fish. How different is the luck

butchery is not sport? When will newspaper men learn that such exhibitions as the above are disgusting to all decent people.—EDITOR.

You are doing more for the protection of game than you have any idea of, and your sentiments can not fail to be endorsed by every true sportsman in the country. RECREATION is making sportsmen out of hundreds of men who were fish and game hogs. J. Dickson, Durham, N. H.

May—I hear Belle had a great talk with Harry out on the beach.

Clara—I should say she did. Even her tongue is sunburned.—Life.

MR. LACEY'S SPEECH ON THE GAME PRESERVE BILL.

When the bill to convert certain timber reserves into game preserves was before the House of Representatives, Mr. Lacey addressed that body as follows:

Mr. Chairman: Our ancestors were all killers. Prehistoric man with his club and his stone weapons no doubt exterminated the mammoth. If these cruel forefathers of ours had owned breech loaders the progenitors of the horse, the cow, the sheep, and the ox would have disappeared from the earth long before domestication. The boy of to-day is as bloody minded as his naked forefather, and begins to slay the birds and beasts as soon as he can hold a stone in his chubby hands.

From the days of the troglodyte the unequal contest has raged. Stone, bronze, iron, hawking, and gunpowder were added to man's power to destroy. Now, with the breech loader and later improved weapons, man has become omnidestructive. He goes 500 miles for a day's shooting or half way around the world for a brief hunting and fishing trip.

The immensity of man's power to slay imposes great responsibilities.

We are threatened with the probable extinction of many varieties of birds and beasts. A birdless world would be a dreary place to live in and a birdless air would be unfit to breathe.

The wild pigeon has gone to join the great auk and the dodo in the realm of obliteration.

We may well pause and consider the situation with which we are confronted.

I read the other day of a hunt in the South where 2 prominent gentlemen from New York killed 1,600 ducks in 2 days, and generously gave them away to show that they were not mere ordinary pot hunters.

These sanguinary sportsmen should have rather hired out or volunteered to stick pigs for 2 days for the meat packers, where they might have glutted their appetite for gore in a more creditable way. The reckless, improvident, and indiscriminate slaughter of our fish in the rivers and the seas only is an illustration of that large waste of our natural resources that is going on in all directions. The natural gas was once worshiped as something supernatural. Now it is used for the most practical of all purposes. It has been recklessly wasted as though it had been infinite in quantity, and the depleted fields show the results of our extravagance.

Oil and forests have been extravagantly exploited in the same way.

Take the State of Texas, where a few months ago we were having many "gushers," supplying oil each at the rate of 74,000 barrels a day. Now, the newspapers tell us, the oil has ceased to flow. Experience shows that all these resources are limited.

Oil in Texas may long be pumped, but vast as the supply is it is exhaustible.

Since I have been in public life I have devoted some part of my time to the subject of the conservation and restoration of our natural resources. This question naturally arises in connection with our public domain.

It is a shocking thing to see the people of the Pacific coast wantonly engaged in making their opulent salmon streams as desolate and barren as the once prolific Connecticut now is.

Mankind must conserve the resources of nature.

When our people were cutting one another's throats during the war of 1861 to 1865 game in the South became abundant, for men had ceased to hunt anything but human kind; but when peace came the war against the creatures of the field and forest was again renewed and waged with unremitting zeal.

It is no credit to mankind that animal life is more abundant to-day around the inaccessible poles than anywhere else on the planet.

Fish in the inhospitable Hudson's bay region are so plentiful that they could not furnish names for them all, and, like the statue to the unknown god at Athens, one of these Canadian fishes was called the "inconnu" or the "unknown" fish.

The proposed railway to Hudson's bay will change all this. The slaughter will grow furious when "civilization" invades this breeding ground of the Far North. Someone must in these days teach the science of how not to kill.

There are 46,000,000 acres of our forests now preserved to keep up the supply of water for our rivers. This is a great step in the direction of husbanding Nature's resources. Farseeing and practical men saw that a part of the forests must be saved or the remainder of the land would become a desert, and the forest reserves were established against the protests of the unthinking.

A few of the primeval woods remain as reminders of the past. A Hibernian friend, a genial ex-Congressman from New York, once defined a virgin forest as "a place where the hand of man has never yet set his foot." This incident shows that the

Irish bull, at least, is not yet extinct. [Laughter.] Our forestry laws have enabled us to save some of these wholesome and delightful retreats.

These woods, thus set apart as the sources of water supply, may be made the city of refuge for the feeble remnant of the mighty throng of animal life that once filled this continent. We have seen the buffalo so nearly exterminated that only about 500 living specimens to-day may be found in the whole world. Their domestication was as practicable as that of the reindeer, the horse, or the cow. The buffalo was the noblest of all the wild animals that inhabited this continent when America was discovered.

The ages in which this wonderful creature was evolved into his peculiar form and size are inconceivable in duration. How admirably he was adapted to life on the Western plains. When he had fed he traveled with his fellows in long lines, single file, to the favorite watering place. The herd did not spread abroad and trample down and destroy the grass in such a journey, but in long and narrow trails the journey was made, and when the drinking place was reached and thirst was sated the buffalo never defiled the pool in which he drank. He was a gentleman among beasts, just as the game hog is a beast among gentlemen. Perhaps out of these scanty remains new herds may again be produced.

We have preserved the wild turkey, which Benjamin Franklin proposed should be adopted instead of the American eagle as our national emblem. The turkey has been saved; the buffalo ought also to have been domesticated. A few of the buffalos still remain. This bill makes provision by which we may have the opportunity of propagating them within a portion of the forest reserves.

Public sentiment is growing in favor of the conservation of our resources. It is timely as to some things. It is far too late as to others.

Mr. Chairman, there are these 2 propositions involved in this bill: First, to allow the Bureau of Forestry in the Department of Agriculture to take charge of that extended farming of the forests which only the Government can manage; second, that in a moderate degree, and within the desires of the people of the locality in which the forests are located, game and fish preserves may be established for the benefit of the surrounding country.

The bill was defeated by reason of the opposition headed by Cannon of Illinois. Shaffroth of Colorado, and others because they feared direful results from the proposed transfer of certain forest reserves from the Interior Department to the Agricultural Department.

We shall not quit here. The measure will be reintroduced in the next session and will no doubt then be passed.

AUTUMN JOYS.

ARTHUR HAZLETON.

When evening shadows gather fast,
And all the sports of day are past,
We wend our way with dog and gun
Back to the farm house, one by one.

Our gracious hostess meets us there,
With wellspread board of ample fare;
The fireplace lends its cheerful gleams,
And on the hob the coffee steams.

Now to the table we draw near,
Where all is happiness and cheer.
We've tramped all day o'er dale and hill;
We eat and drink with hearty will.

Then in the fireplace's softened glow
We sit, and talk in accents low;
The dogs curl up, and soon, in dreams,
Are hunting by the sedgy streams.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, s a real sportsman.

A SPECIOUS PLEA.

W. E. Newbert and W. H. Young of Sacramento recently enjoyed a trip to Norman, in Glenn county, in quest of wild geese. They report a fine day's shooting, despite the fact that it rained heavily and that such a strong wind was blowing the geese could hardly fly against it. However, 173 brant fell to the guns. While there the shooters were informed that the farmers of that locality were employing men to herd the mallard ducks off their sprouting grain, and were slaughtering vast numbers of the birds, which were allowed to stay on the ground where they fell.—San Francisco Evening Post.

Touching this matter, W. W. Young writes as follows:

Yes, we did kill 173 geese or brant in what is termed one day's shoot; that is, we shot 2 hours on the afternoon of February 21st, and killed 32 birds, and on the following morning, in about 5 hours bagged 141 more. Nearly all were small brant. The remainder, 2 or 3 dozen, were what are locally known as Mexican brant.

Now, while offering no apology for our large kill, I should like to explain the matter to you and the many readers of RECREATION.

Norman is in one of the most productive grain sections in California and is about 20 miles from the foothills where the geese begin their long flight Northward in the spring. The railroad divides the county into 2 sections; to the West being innumerable grain fields, and to the East a grand ridge 3 miles wide and many miles in length. On this ridge the geese congregate by millions, and generally remain several weeks, feeding in the adjacent grain fields until they have accumulated enough fat to last them until they reach their next stopping place in the North. One can readily see how destructive they must be to newly sprouted grain. In fact, the farmers in that neighborhood are compelled to hire men to herd the geese off their grain, night and day. One wholesale hardware firm in this city formerly shipped every Saturday to the large Glenn ranch, in the vicinity of Norman, 20,000 to 50,000 rifle cartridges to be used in driving the geese off the grain fields.

On our trip we saw from car windows one continuous flock of geese on the ridge, extending nearly 10 miles. At one time during our stay, I saw 5 flocks of geese in the air at one time, in as many different directions, that would have easily covered 20 acres each.

Doc Stuart, Abe Crump and Claude Kager, all thorough sportsmen, men who would go out of their way at any time to apprehend a violator of the game laws, had been shooting geese several years on what is known as Mame prairie. Farmers in the vicinity of Norman invited them to settle there, which they did. They were given permission to enter all fields in that vicinity; the farmers furnished them horses and hauled firewood for them.

Stuart and his party have a large number of live geese for decoys, and many wire forms for stooling dead birds. The men are all expert goose callers, and have reduced goose shooting to a science. The birds are shot from pits dug in the prairie, and the first shot is never fired until the birds are within 20 yards, so few cripples are sent away. The game is taken to camp; the guest is given all he desires and the remainder is shipped to the San Francisco market.

I am told that the constant shooting has, to the joy of the farmers, caused the birds to leave for the North 2 or 3 weeks earlier than usual.

Here in California we do not think enough of wild geese to protect them, and one is at liberty to at any time kill all he can. In spite of that, they were more numerous last year than they have been since the Stuart party began shooting.

Will H. Young, Sacramento, Cal.

Mr. Young presents what on its face appears a case of justifiable homicide, but there is still left behind his defense and that which he puts up for his neighbors, the intent of excessive slaughter. If, as he claims, the only object in this shooting was the protection of the crops, that could be accomplished just as well by firing blank cartridges at the birds or by chasing them with dogs or on horseback, or even on foot, as by killing them. It is not necessary in order to save the crops that men should bury themselves in pits and lie closely concealed until the unsuspecting geese and brant are within 20 yards of them, then rise up and pour murderous volleys of heavy shot into them. If the real object was to save the grain, why should not the men sit up or stand up or walk about when they saw the birds coming? If they would do this the birds would not come anywhere near them. The farmers who are spending money for ammunition evidently have their eye on the mighty dollar which they can get from the market when they send the birds in. Whether they get back more money than they pay for the ammunition I do not know, but they could doubtless em-

ploy boys for 50 cents a day each, who would chase the geese off their big ranches at much less outlay than they would incur in buying the thousands of cartridges these men burn. Then the geese and brant would be saved for the 100,000 other people in the West who have the right to a few of them when they can get them. Brother Young, do not ever again try to justify yourself for having killed 100 or 200 brant in a day by claiming that they were cating the wheat. Kill 5 or 10 in a day; then, if your object is to save the grain, take a broom or a whip and shoo the birds awav.—EDITOR.

ELK, BEAR AND DEER ARE FOLLOWING THE BUFFALO.

A deputy game warden in Colorado recently made some forcible remarks on the senseless killing of big game. He said:

The day is coming, and it is not 5 years away, when elk, deer, bear, and all wild game will be so scarce in Colorado that one can hunt for a week and not get a shot. The way the big game of the State is allowed to be exterminated is an outrage. It will be the same story as that of the buffalo, and now people are lamenting the extermination of the buffalo. When it is too late, and all Colorado's game is extinct, they will also regret the elk and the deer.

I lived ahead of the railroad when it was built across the plains from Topeka to Denver. I had a portable house and kept moving it as the road was built. I saw much of the shameful waste of game then. I have seen men shoot buffalo down by hundreds, start the hide and hitch a mule to it; pull it off, and leave the meat to rot. I have seen 20 flat cars in one train stacked as high with buffalo hides as they would pass under the bridges, bound for the tanneries in Kansas City. I have ridden on the pilot of the engine when the road was building, and in a run of 20 miles have seen 50,000 buffalo.

A few years later I saw hundreds of men going about over the plains gathering wagonloads and trainloads of buffalo bones. That is how the buffalo went.

Now the other game is going the same way. Nobody tries to stop it until it is too late. Game Warden Harris is one of the best wardens we ever had. He would stop the slaughter if he were let alone, but they do not give him any money. Politics figures in the matter, and he is not allowed to do anything. If they would give him a free hand and money he would do it.

The game is going fast. I can remember 10 years ago, when I lay hidden in the brush on Farwell mountain, and saw a band of elk pass by. I counted 400, and there must have been 200 more. When the last of the herd was passing I shot a big bull and his head now hangs in the Brown palace lobby.

Now you can hunt the whole mountain over and you will never see more than 20 elk in one band, usually only 5 or 6. They have been killed off.

It is alarming, too, to see how the deer are thinned out. This year there are not more than 1-6 as many fawns as there were last year. The bucks have been killed off until there are about 6 barren does to every one that has a fawn. I have been all over the game country and I know. There are scarcely any fawns this year.

The grouse are being killed off, too, and there is only about half a crop of young ones. When you see a hen this year with a brood of little ones she has only 5 or 6, instead of 10 or 12, as usual. That is because of hawks, eagles and coyotes. The coyotes are following man up into the mountains. I never heard of a coyote up in my neighborhood until the last few years. Now there are many.

But it is the men that are killing everything and will never be satisfied until they have exterminated everything that runs wild.—*Exchange.*

THE DESTRUCTION OF ANIMAL LIFE IN ALASKA.

Beginning about September 1st, both native and white hunters cruise among the islands in small boats and either hunt the deer with jacklights or run them into the water with dogs and shoot them while swimming. The greatest slaughter occurs about Wrangel, where the deer are most abundant. Carcasses of deer often sell for $1 each, and frequently the bodies are piled up on the wharves like cordwood. I was told by one person that he has seen the loft of a warehouse hanging so thickly with their bodies that it seemed impossible to crowd in even one more.

It is no uncommon occurrence for sloops manned by small crews to return from a few days' trip with 50 to 75 carcasses. Often only the hindquarters are taken. From my notebook I copy the following, under the name of Harry Pigeon of Wrangel: "I saw 5 men return from a week's hunt with 152 carcasses of deer aboard their sloop."

Deer skins have a commercial value of 10 to 20 cents each, and small as this is, thousands are slaughtered for their hides alone. While at Juneau I saw, in the Pacific Coast Company's warehouse, 10 bundles of deer hides, each containing about 70 skins, awaiting shipment. A few weeks

later a second shipment of the kind was made.

While the slaughter of moose is not so great, numbers are wantonly killed, as the following will show: Two men at Chickaleon bay, near Turnagain Arm, Cook Inlet, killed 16 moose in 2 days. The first day one shot 8 and the other 7. In order to make an equal showing with his companion, the one who killed only 7 took pains to shoot another the next morning. Little if any of the meat was taken.

The North American Company's agent at Knik placed an order with the Indians for 24 head-skins, from heads of bull moose only. One windy day the total number was secured and the relator was quite confident that more than were asked for were brought in.

In the summer of 1889 one Indian killed about 50 moose back of Tyonek. In the winter of 1901 one of my Indians killed 5 moose back of Kn k, and saved the meat of but one. When asked why he did not use them all, he replied that "they were bulls!"

Probably the demand for heads and skins is doing more toward diminishing the game about Cook Inlet than anything else. Tempted by the prices offered for heads, the Indians and a few whites shoot promiscuously in hope that the animal killed may prove to have extra large antlers or horns. As it is usually impossible to judge the size of a head until its owner lies at one's feet, hundreds of animals are slain without being touched.—J. A. Loring, in the N. Y. Zoological Society's Annual Report.

This slaughter was committed before the enactment of the Lacey Alaskan game law. It is to be hoped the officers charged with the enforcement of that law will see to it that no more such butchery is perpetrated. —EDITOR.

AS OTHERS SEE US.

Though I have been all my life a lover of Nature and its wild creatures, I have been unfortunate in not discovering RECREATION until recently. It stands unreservedly for every idea I have cherished concerning game and bird protection, and while it does so I shall remain its loyal friend. My father was a German forester and loved every wild thing in the woods. He would not kill even a snake. It was under his teaching that I acquired a love for God's inarticulate children.

I came to this country in 1868 and have seen the total destruction of the buffalo and the wild pigeon. Countless other species are in process of extermination. Another 20 years, if the wanton destruction is continued, will see this fair land inhabited chiefly by domesticated animals and 2-legged creatures bent on turning creation into dollars and cents.

Compare with the United States such thickly populated countries as England, Germany and France. In those animal life is nearly as abundant as it was 500 years ago. The people there protect the lesser creatures and sternly prosecute trespassers. Here the people are rocked in the cradle of liberty until each individual thinks he owns the whole outfit, from rockers to canopy. No one or thing but he has any rights. As a result we shall soon be an animalless and birdless country, while those others will be long blessed with things other than human and manufactured.

Since 1870 my occupation has taken me all over Iowa, Illinois, Indiana, Ohio, Missouri and Kansas. Many times have I been disgusted with the barbarous slaughter of game that I have seen in season and out. In every village I have found one or more beings, too lazy to work and too cowardly to steal, who lived by butchering everything whose murder would not land them in jail or on the gallows. Why the mass of American people submit to such work passes my comprehension. An American game hog transported to Europe would find life a burden, and quickly hang himself to be rid of it.

If it were in my power I should rigidly protect all wild life on this continent, excepting, for a short yearly season, such animals and birds as are admittedly game. Even hawks and owls I should protect, save the 3 or 4 species that have been proven enemies of other birds. The farmer who indiscriminately kills hawks and owls, kills his best friends.

Eastern countries are perhaps effete in some respects, but they are a thousand times more alive to game protection than is this, in other ways, the greatest country of all.

Gerhard Schmalhaus, Davenport, Ia.

THREE YOUNG BRUTES.

Three of us, Willie, Wesley and I, were camping on the Upper Bog, in the Adirondacks. One sunny afternoon in September we were alternately rowing and floating down the still water, having been up toward Moosehead, looking for berries. We had an old single barrel muzzle loading shot gun, but had exhausted our ammunition shooting at marks and small game. Suddenly one of the boys called out:

"What's that swimming between the main shore and the island?" I looked in the direction pointed out, and saw the antlers of a good sized duck moving rapidly toward the island.

"It's a deer, boys," I cried; "let's try to head him off. One of you get at the oars and the other take the pad-

dle. May be we can get close enough to smash him on the head with the butt of the gun." The boys sent the boat flying over the water and we were soon within 2 feet of the buck. I was about to hit him on the head, when he turned so abruptly that I nearly lost my balance. I shouted to the boys to head him off again, and they certainly did good work. For several minutes we kept him at bay between the island and the main shore, sometimes approaching close enough for me to touch his horns, but each time he would give a sudden lurch and change his course. I shall never forget the haunted expression of his eyes as he swam, with antlers thrown well back, his breath coming in quick gasps. At any other time I know I should have had compassion on him. When we were congratulating ourselves that he would soon be our game we came to our senses sufficiently to hear shouting and shooting on the main shore. There a bunch of buck-crazed city fellows were firing at the deer, the bullets whizzing all about us. The more we shouted to them to stop, the more they fired and the more crazed they became. Finally we began to consider our own safety sufficiently to stop our boat about midway of the river. The buck, seeming to gauge the ability of the metropolitan Indians, swam directly toward them, notwithstanding their firing and yelling, reached the bank, and leisurely moved off into the woods unscathed.

W. B. Leonard, Glens Falls, N. Y.

I am glad the deer escaped. You should have let it alone in the first place. If you had not a gun and could not kill the deer suddenly and in a sportsmanlike manner, you should have let it alone. Your attempt to beat it to death with an oar was brutal, and you should be heartily ashamed of it.—EDITOR.

BRUTALITY, NOT SPORT.

It was with great pleasure that I accepted an invitation last fall to hunt quails and rabbits. Taking my double barrel shot gun and 50 shells I started with my friend and soon we reached the stubble of an oat field.

There we separated. I had about crossed the field when I heard a slight rustling and detected a movement on the ground in front of me. First I thought it was field mice but finally decided it might be quails and I fired into the stubble. Up sprang a flock of the birds and I fired my left as they sailed away, but missed. I marked down 5 or 6 near the corner of the lot. I found I had killed 4 with my first barrel. Much elated, I headed for the fence.

When about 25 yards from the corner, I saw 2 quails sitting side by side on the fence. I let fly both barrels. My aim was true and both birds were mine.

Looking for tne other birds I noticed a small bunch of oats left by the reaper, under which quails could easily hide. First I thought I would go up and kick the bunch, but finally decided it would be too much trouble, so fired both barrels into the oats. Much to my delight the shot added 3 more quails to the 6 already in my bag.

The remainder of the afternoon I hunted rabbits and succeeded in getting 19. I would have secured more if they had not got into the stone walls after being wounded. On my way home I passed the place where I shot the quails, and, hearing one calling on the fence, I crawled up and popped him over. That made 10 quails.

My friend did not have such good luck, as he had to return earlier than I because of wounding his hound in firing at a rabbit which the dog was pursuing. However, he succeeded in getting 14 rabbits and a ruffed grouse which he found running on the ground with a broken wing.

Thos. B. Daley, Norwich, Conn.

Talk about prohibiting the use of dogs in hunting! A dog is a gentleman as compared with this man. So is the man who uses the dog. As a rule I have found that only real sportsmen use dogs in hunting birds. Such men never shoot a bird until it is on the wing, but here is a man who would doubtless condemn the use of dogs in hunting. He goes out, ground-rakes his birds and kills 4 or 5 at one shot. He fires both barrels at 2 birds sitting on a fence and is delighted to see them fall, mangled, to the ground. This man is of the same type as the brute who uses a ferret.—EDITOR.

A WHITE DEER.

From a country paper I learn that a white deer was killed recently on a private game preserve in the Adirondacks and that the owner of the preserve, a resident of Glens Falls, N. Y., sent the skin as a present to the Superintendent of State Forests. The recipient of the skin of the deer, whose fatal beauty made it a shining mark for the hunter, is not blamable in this pathetic business; while the owner of the preserve may be equally innocent, the animal having been killed, probably, by some unthinking employee.

But the irony of it! The loveliest, rarest creature in the wilderness is killed on a game preserve, and its skin adorns the office of the guardian of our State forests! Well may the deer include in their orisons: "Preserve us from our preservers!"

The news article stated that only 2 white deer have been seen in the Adirondacks

in 30 years. Had the dull witted individual who shot the animal contrived to capture it alive, a feat not impossible, it would have brought a fabulous price.

Herein lies the pity of it, that notwithstanding the wide educational effort put forth by humane people, nature lovers and scientists, to protect and preserve rare animals and birds, still the average man or boy can not repress his desire to kill every rare or beautiful thing in the animal world. The rarer and more beautiful, be it cardinal bird or blue heron or silver fox or white deer, the surer its fate. Herein we confess our uncivilization or mal-civilization, for the Indians regarded the white deer with reverence and preserved it. How much pleasure might have been afforded if this snowy vision of grace and harmlessness could have been allowed to live year after year in the Adirondacks, tamed perhaps so as to haunt the neighborhood of camps and hotels, where thousands could have enjoyed a glimpse of it. Perhaps it is impossible for some persons to believe in beauty until they slay it.

If our rare and beautiful animals and birds are to survive for coming generations to admire, it must be through the practice of individual forbearance, as well as the dissemination of sensible and enlightened ideas.

C. H. Crandall, New Canaan, Conn.

A CONVICTION IN MALONE AT LAST.

An important case, from the standpoint of public welfare, was that of the People vs. Wm. B. Trowbridge, Jacob C. R. Peabody, Sautelle Prentiss, John Rork, and Alvah Bennett. The 3 former are city men who went to the Adirondacks to hunt, and the latter 2 were their guides. They organized a hunt at Grass pond in Brighton, going into camp there, where they remained 8 days. Four dogs were brought into camp, among them 2 beagles. The men claimed they were hunting rabbits with the dogs, but it was proved that they killed one rabbit and 2 deer. The penalty for taking dogs which will run deer into a forest which deer inhabit is $100. The jury found a verdict for 5 penalties against the parties, covering 5 separate days, amounting to $500. The deer were killed in the open season, the offense being the putting out of dogs in the woods. It is so seldom that verdicts for penalties in game law cases are rendered that this one should receive more than ordinary notice. It appears the dogs were not of the kind usually employed in hunting deer and this verdict should prove a warning to those who take into a forest bird dogs and rabbit dogs which will run deer. Wardens Pond and Vosburgh deserve much credit for the manner in which they worked up the evidence in this case. There have been many complaints of dogging deer in the Adirondacks, but it has been difficult to secure evidence. Hotel men and others interested in the protection of game should make the work as easy as they can for the protectors by furnishing them with information, for only by the insistence on the part of everybody who loves the woods that the laws shall be observed, can these sports be preserved. This verdict is a great victory for the State in a difficult and complicated case.—Exchange.

Malone has long been known as a hot bed of law breakers and it is indeed gratifying to learn that at last a herd of Malone swine have been rounded up and the members thereof compelled to liquidate. Several strong cases have been made up by friends of game protection in or about Malone within the past few years and presented to the officers for action, but these officers and the attorneys in that town have declined to prosecute people whom they term their personal friends. It seems that the men named in the foregoing article have no influential friends in or about Malone and so they caught it in the neck. Now that an example has been made I trust that no more favors may be shown to law breakers in that vicinity because of friendship or political pull. The law should be no respecter of persons. The banker or the mill owner or the railroad officer who violates the law should be dealt with exactly as the farm laborer or the woodchopper is when he goes against it.—EDITOR.

PRAISE FROM SIR HUBERT.

I have lived 77 years and now wish to speak to my younger fellow sportsmen in behalf of that great little magazine RECREATION. In my time I have read most publications devoted to the sportsman's life, but RECREATION is far above all others. Its noble work will be more and more fruitful as time advances and its doctrines will be endorsed by all before many years. Through its efforts the game which a few years ago seemed doomed to extermination will be preserved.

I think it was in the fall of 1857 that I killed 92 prairie chickens with a muzzle loading gun without being called a game hog, for that word was then unknown. Game was in such abundance, that pot hunting was a paying business and an honorable occupation. It was about 7 miles North from where the town of Minerval now stands that I built my shanty, which I occupied 18 years with no one but a fugitive Indian for a neighbor.

Brighter heads than mine discovered that something should be done to protect game. Consequently RECREATION was born and the League of American Sportsmen was formed. Its arguments soon convinced and converted me. From an old pot hunter I became a protectionist. I must admit that I still approve of spring duck shooting for the good reason that it is all the duck shooting there is in this locality. We have no water here in the fall and you know we all like to have a little of the pie. Nevertheless, I must say RECREATION is the greatest of all magazines for sportsmen. I wish it success to the limit and hope it will soon be found in every home in the United States. Good-bye, dear friends, in

case you never hear from me again; follow RECREATION, be true sportsmen, and I will meet you all again in the happy hunting grounds.

Old Leo, Atkinson, Ill.

DEFENDS THE COCHRAN PARTY.

In your May issue of RECREATION on page 371, in an article entitled "Weak-kneed Justice," your correspondent quotes a news item which appeared in the daily papers last fall as coming from Richmond, Va., and some caustic comments by your correspondent and yourself follow.

That item contains a gross misstatement of facts. I was a member of the hunting party referred to. The facts are these: Senator Cochran and his friends were invited by Mr. Howard to hunt over certain lands which belong to a well known gentleman of Middlesex county, Va. The party were the guests of Mr. Howard and a member of the family of the owner of the lands. A part of this land had been leased by the owner to a man by the name of Burton for farming purposes, but reserving to the owner and his friends the right to hunt on these lands. The party hunted one day on these lands and were found there by Mr. Burton, who swore out a warrant against them for trespass in hunting on posted lands.

That was the case which was before Squire Davis at Saluda. The production of the lease and the evidence of the fact that the party were there as guests of the owner of the land, who also possessed the right to hunt over the same for himself and his friends, caused Squire Davis to discharge the defendants. The party were not shooting game out of season, as the season for quails was then open in Middlesex county, Va.; and they were not charged with shooting game out of season. All of the party are law-abiding citizens, as well as good sportsmen. An inquiry at Saluda or any other part of Middlesex county will confirm my statement of these facts.

John G. Reading, Williamsport, Pa.

NOT LAWFUL TO KILL ROBINS.

I am an old reader of RECREATION and am in full sympathy with your good work.

Some friends claim that should a robin be found eating their cherries they would have legal right to kill the bird and that it would be impossible to convict a person for so doing. Is that the fact?

H. C. Howard, Groton, N. Y.

ANSWER.

There is a law on the statute books of this State prohibiting the killing of robins at any time and under any circumstances. There is no provision in this statute in favor of a man who owns a cherry tree or a grape vine. It is true that robins and other birds sometimes eat fruit, but a man has a mighty small soul who would begrudge one of these birds a few cherries or grapes. At other times of the year these same birds are busy eating the bugs and worms off the fruit trees and grapevines and out of the corn fields and wheat fields. It is estimated that each insectivorous bird consumes one bushel to 2½ bushels of bugs and worms in the course of its life. In spite of this there are men everywhere so stingy, so utterly ignorant, and oblivious to the beauties of nature and to the rights of dumb creatures that they would kill robins and meadow larks and even mocking birds for carrying off even one cherry from their trees.—EDITOR.

MICHIGAN NEEDS LAW AGAINST FERRETS.

J. Niffenegger and one Clark, whose first name I do not know, killed 47 rabbits in 3 hours. They used a ferret and a hound. Niffenegger is owner of a market here and a member of the city council. No attention is paid to the game laws. Quails were shot a month after the season closed.

M. P. C., South Haven, Mich.

I wrote Niffenegger and here is his reply:

We did get 47 rabbits but it took us longer than 3 hours. Rabbits are getting well cleaned up; it is hard to catch more than 10 or 15 a day now.

J. Niffenegger, South Haven, Mich.

Unfortunately there is no law in your State to prohibit the use of ferrets in hunting rabbits, but I hope your Legislature will enact one at its next session. Meantime I will be glad, the next time you go nosing round a rabbit burrow and stuffing your dirty rodent into it, if some fellow will get a drop on you and fill your clothes full of B B shot. No law that is ever likely to be enacted will be drastic enough to fit such a case as yours. The only means of inflicting proper punishment on such swine as you is either the shot gun or the horsewhip.—EDITOR.

LAW DOES NOT EXEMPT PROSPECTORS.

Would it not be well to mention in RECREATION that prospectors are subject to game laws like the rest of us? RECREATION is widely read in the West and I know of no better way to disseminate the information. The genuine prospector usually attends to his business and does not bother the game; but other parties, believing prospectors exempt under the game

laws, go out after game, and carry a pick and shovel, and claim to be prospectors.

W. S. Bates, L. A. S., 143 Chicago.

It is a lamentable fact that a great deal of game is killed illegally by pretended prospectors. A legitimate prospector is not exempt from the game laws in any State, as far as I know, but it is the custom of nearly all prospectors and ranchmen in the mountain States to kill game for their own meat, even in close season. This is not right, and such men may be prosecuted at any time. The difficulty would be in getting a jury that would convict a real prospector or a poor homesteader for having killed a deer when he needed the meat. If on the other hand a man merely pretends to be a prospector and kills a game animal in close season he should be punished for it and there would be little difficulty in inducing a jury to convict a man under such circumstances.—EDITOR.

NOT FIT TO LIVE.

Ed. Davenport killed his 60th deer Saturday and then swore off for this season. If there is a deer hunter in the whole country who can equal this record he has something to brag about.—Uvalde (Tex.) Leader News.

On receipt of above clipping I wrote the person mentioned, asking if the report was true. He answered as follows:

I am in receipt of your favor asking if the report be true about my killing 60 deer last season. Will say it is. I killed all 15 miles North of my town, Sabinal. Of the 60, 54 were killed running. I also killed 28 turkeys.

Ed. Davenport, Sabinal, Tex.

It is strange that the ranchmen of Texas should have expended so much money in poisoning, trapping and shooting coyotes and wolves and should still allow so vile a pestilence as you to live. It is a great pity that some old wolfer has not waylaid you long ago and fixed you so daylight could shine through you. It is to be hoped someone who is interested in saving whatever little game is left in Texas may do this in the near future.—EDITOR.

GRUNTERS CAN NOT SCARE RECREATION.

Pendleton, Oregon.

Editor RECREATION:

Having been a constant reader of RECREATION 5 or 6 years, I take the pleasuse of giving our Western sentiments to your readers. This does not come from one you have roasted, but the cause is we are all awfully tired of your roast pork. RECREATION used to be a pleasure to what it is now. We are as much or more so from your preaching it and your monthly roasts only adds fuel to a bed of live coals. So to put RECREATION on her level again cut out all your game hog business.

The sportsmen are going to serve their own ideas to suit themselves and not listen to a far away coacher like you pretend to be. Your photographs and roasts only keeps the ball a rolling. The larger the hog the more he grunts, so take warning.

J. W. Lane.

All right, Lanie, you have had your grunt and I hope you may now feel better.

As for RECREATION it will keep right on roasting pork as long as such brutes as you are at large. If you don't like it quit reading it and subscribe for the A. D. G. H.—EDITOR.

LIKES ROAST PORK.

I am an ardent admirer of RECREATION and have not missed a copy since October, 1897. Am in hearty sympathy with your fight against game extermination. The squealers who condemn your methods are chiefly those who are the hardest hit; for example, "Mossback," who tries to be funny in his articles in a cheap magazine published in Denver. I am pleased to see you so firmly intrenched and hope your good work will go on.

Last summer I bought a King canvas folding boat and for general utility it has no equal. It is an 11-foot special ducking boat, fitted with a coaming, is a neat, light model, with longitudinal and diagonal steel ribbing, and has a large carrying capacity. The price was low and the boat is certainly all its makers claim for it. I have given it many severe trials, on pond and stream. It makes an admirable blind when shooting near shore and as it rides low in the water is excellent for jumping ducks on a stream. As it is very stable it is good to cast from while fishing either on lake or stream.

J. E. Kirkbride, Boulder, Colo.

GAME NOTES.

By the July number I see you have been away in the mountains for your health. I am sorry you had to go and am glad you are able to report improvement. A year ago you told me how you slept with a scratch pad and pencil under your pillow, made notes as thoughts impressed themselves on your brain, and often found a batch of 10 or more in the morning on the floor. I thought you were playing pretty close to the cushion. Cut it out. We want you to live a long while yet. When you go to bed, leave "roast pork," L. A. S., "Paddy," etc., etc., behind. No man, even yourself, can burn the candle at both ends, indefinitely. I do not write this as a preachment, but simply to let you know that I, in common with the rest of

the RECREATION host, am more than interested to keep you in good working trim.

Dr. E. B. Guile, Utica, N. Y.

Game is increasing in this part of the State. Five years ago quails were almost extinct; now they are fairly abundant. Grouse have about disappeared from the level country, though that is due, I think, more to the cutting away of the forests than to excessive hunting. In the mountains grouse are still plentiful. It is a pity our deer law does not forbid the killing of does. I think the fee for a hunting license is in many States altogether too high. If put at $5 it would produce enough revenue to protect game and at the same time would not bar a poor man from a chance for sport.

M. J. Keans, West Middletown, Pa.

You are doing a great work for game protection. I wish the South was more progressive in the matter. Still, I think our people will gradually fall in line. Even now we have a few as thorough sportsmen as can be found anywhere. Quails are abundant here and we have a few deer, turkeys, and squirrels. If our game had a fair chance, all kinds would become plentiful. As it is, deer are hounded in summer and fish are netted and dynamited. Robins and other birds are killed by thousands in their roosts at night.

D. L. Smith, Brookhaven, Miss.

November last Messrs. Duke, Merrill, Eckler, and Neagles and I, old companions afield, revisited a favorite hunting ground near Dollarville, Mich. We were met at the station by a teamster and taken 20 miles into the wilderness. The first day we watched well known runways. Eckler killed a good buck and I got a shot at a big 5-pointer. The second day we killed 4 deer, still hunting. There is excellent hunting and fishing all along the Grand Rapids & Indiana railroad.

C. H. Weisner, Grand Rapids, Mich.

Will you allow me to correct a false impression created by a correspondent of RECREATION, Mr. N. W. Wright, of Selma, Ohio. He says in April number, 1901, under the heading "Hunting in Arkansas," "Go to Cairo over the Iron Mountain. Ten miles from Cairo you come to the headwaters of the St. Francis where you can unload your boat, etc." As a matter of fact, St. Francis river is more than 75 miles from Cairo. The headwaters are 130 miles Northwest from Cairo.

A. G. Powers, Dayton, Ohio.

I am sure the L. A. S. can do a lot of good in this section of the country. There were few violations of the game laws here last winter and, in consequence, deer and fish are plentiful. Six deer came within 400 yards of our house and let a man walk up to within 30 steps of them before they moved. Guess they knew there are a few members of the L. A. S. in this locality who are ready and willing to pounce on any man who would kill one of these deer.

A. L. Smith, Kingston, Ida.

Quails were more numerous in this locality last season than for several previous years, and, as most of our sportsmen are now members of the League, the abundance of birds is accounted for. On the last day of the open season I saw several unbroken covies, so the prospects for this fall are unusually good. During the mating season I could hear the call of quails whenever I rode into the country.

W. K. Decker, Tarpon Springs, Fla.

RECREATION is all right and its work for game protection deserves the hearty commendation and earnest support of every public spirited American citizen, whether sportsman or not. Enclosed find $1 for which please send me RECREATION for one year from date.

H. D. Grose, Ann Arbor, Mich.

I agree with Wade McIlrath that the grouse of Ohio should be protected for a term of years. We have an ideal grouse country, but birds are exceedingly scarce. Quails wintered well, and with good nesting weather should be abundant this fall.

W. D. Held, Newton Falls, O.

Elk have more than held their own the past year in the Jackson Hole country. Observers on the winter ranges report that the animals are in splendid condition after an unusually mild winter and much more numerous than in April, 1901.

T. R. Wilson, Alta, Wyo.

I greatly admire and fully endorse your crusade against the wholesale butchery which is so often wrongfully called sport. Every right thinking person should be glad to join in a vote of thanks to you.

Mrs. A. S. Murray, Goshen, N. Y.

In the Province of New Brunswick big game is well protected and is increasing, but small game is not looked after at all. In the other Provinces, especially in Quebec, big game is not well protected.

Henry D. Chisholm, Dalhousie, N. B.

ALMANAC FOR SALT WATER FISHERMEN.

The following will be found accurate and valuable for the vicinity of New York City:

Kingfish—Barb, Sea-Mink, Whiting. June to September. Haunts: The surf and deep channels of strong tide streams. Baits: Blood worms, shedder crabs and beach crustaceans. Time and tide: Flood, early morning.

Plaice—Fluke, Turbot, Flounder. May 15 to November 30. Haunts: The surf, mouth of tidal streams. Baits: Shedder crabs, killi-fish, sand laut. Time and tide: Ebb, daytime exclusively.

Spanish mackerel—Haunts: The open sea, July to September. Baits: Menhaden, trolling—metal and cedar squids.

Striped Bass—Rock Fish, Green Head. April to November. Haunts: The surf, bays, estuaries and tidal streams. Baits: Blood worms, shedder crabs, Calico crabs, small eels, menhaden. Time and tide. Night, half flood to flood, to half ebb.

The Drums, Red and Black. June to November. Haunts: The surf and mouths of large bays. Bait: Skinner crab. Time and tide: Day, flood.

Blackfish—Tautog, April to November. Haunts: Surf, vicinity of piling and old wrecks in bays. Baits: Sand worm, blood worm, shedder crabs, clams. Time and tide: Daytime, flood.

Lafayette—Spot, Goody, Cape May Goody. August to October. Haunts: Channels of tidal streams. Baits: Shedder crabs, sand worms, clams. Time and Tide: Day and night flood.

Croker—July to October. Haunts: Deep channels of bays. Baits: Shedder crabs, mussels. Time and tide: Day, flood.

Snapper—Young of Blue Fish. August to November. Haunts: Rivers and all tide ways. Baits: Spearing and menhaden; trolling pearl squid. Time and tide: Day, all tides.

Sheepshead—June to October. Haunts: Surf and bays, vicinity of old wrecks. Baits: Clams, mussels, shedder crabs. Time and tide: Day, flood only.

New England Whiting—Winter Weak-fish, Frost-fish. November to May. Haunts: The surf. Baits: Sand laut, spearing. Time and tide: Night, flood.

Hake—Ling. October to June. Haunts: Open sea surf, large bays. Baits: Clams, mussels, fish. Time and tide: Day and night, flood.

Weak-fish—Squeteague, Squit. June to October. Haunts: Surf, all tideways. Baits: Shedder crabs, surf mullet, menhaden, ledge mussels, sand laut, shrimp. Time and tide: Day and night, flood preferred.

Blue Fish—Horse Mackerel. June to November 1st. Haunts: Surf, open sea and large bays. Baits: Menhaden, surf mullet and trolling squid. Time and tide: Daytime; not affected by tides.

TROUT FISHING IN LAKE RONDAXE.

Albany, N. Y.

Editor RECREATION:

The trout fishing season opens here April 16, but our fishing trips commence much earlier. What I mean by this is that toward the last of March my father comes to the store some bright, warm day, with a peculiarly happy look, opens the day with an extraordinary greeting, walks behind the counter, smiling and making remarks about the early Spring, etc. Then come the expected accounts of former fishing trips, of beautiful catches of brook trout, and a little brag, of course, with probably some useful information and advice.

Later, follows the trip to Lake Rondaxe, on the North branch of Moose river, Herkimer county, in the Adirondacks. It is a small lake but one of the prettiest. On the South shore, at the foot of a mountain, is a large log cabin, deserted by lumbermen, which we renewed and made comfortable. In there, on cold April nights, the happy anglers assemble around the fireplace and overflow with talk.

The party this year consisted of my father, Otto H. Fasoldt, called the Boss, Mr. H. D. Hawkes, my brother Dudley and me. Our 2 days were precious and will remain long in our memory. The first day it rained, but how could we stop for that? Preparing for the worst we went forth and "when the wind blows from the West, the fishing is at its best." The lake is preferable to the river or the brooks.

After a few favorite spots are tried with the fly, we resort to trolling with the meek and lowly worm and we find this much more attractive to these uncultivated fish. A joyous chuckle follows the first series of quick jerks, and then the play. Five minutes elapse before he is conquered, after numerous attempts to get him near the net, and Hawkes is the possessor of a beautifully spotted and colored 14 inch trout. He is not immediately placed in the basket. NO, No! The weight is guessed, and the meal is contemplated, but not quite fulfilled.

Meanwhile the Boss eagerly holds his rod in readiness to gobble the trout he expects to attack his trailing bait. A slight tug is felt, but not repeated, strange to say. Reeling in, the Boss finds, to his disgust, that the entire bunch of worms is gone. He must artistically rebait. A few minutes pass; again the quick jerks and a tug that nearly shatters Hawkes' nerves. The way he handles the fish makes the Boss laugh. Hawkes is proclaimed a corker. He refuses to drown the fish and tries to land it immediately. It took him nearly 10 minutes to get it into the net! Sixteen inches is the length of the trout and the weight probably 2 pounds or more. Certainly Hawkes should be satisfied. No, he would take these home and catch more for the table at camp. Two more he got, each 12 inches in length.

Then the Boss landed 2, 14 inches and 12 inches, and that ended the catch. The fish would bite no more. Dudley and I had equally good luck, and I, also, secured a 16 inch beauty.

The next day was one of the finest that ever dawned. For a change, we tried still fishing. It was remarkable how hungry

the trout were. It seemed to be my lucky day. I was alone in a boat within sight of the Boss' boat. I was hardly settled when a big trout took hold. The battle was long. My right arm was well tired before he was landed. He measured 17½ inches and weighed 2½ pounds. The Boss spied me standing in the canoe, the rod waving back and forth, and in they came. He dropped his anchor as close to me as space would allow. This I did not object to. I shortly hooked another large trout, weighing nearly 2 pounds and measuring 15 inches. The Boss and Hawkes remarked that my trout were the last 2 big fellows left, for they could not reach the 14 inch mark after that; but they had caught 3 or 4 in the early morning.

At one time I hooked a trout and exclaimed that I had a big one. At the same moment the Boss pulled up with a similar statement. We soon discovered that but one fish was the cause, a 12 inch fellow. Who was entitled to it was impossible to determine, it having swallowed both hooks.

James S. Fasoldt.

A HOG IN YELLOWSTONE PARK.

A sportsmen's journal, published in Chicago, recently printed one of the old style fishing stories written by one W. B. Goodsell, in which he tells how he slaughtered trout in the Yellowstone National Park in the summer of 1901. He says among other things:

"I found, by a stop of one day, 42 pounds of magnificent grayling and trout, the former predominating, and varying in size from three-quarters of a pound to 2 pounds' weight. Occasional doubles showed one of each species. Between 10 o'clock a.m. and 5 p.m. I had filled my 20 pound creel, my fishing coat pockets and a willow crotch, until I quit, just as the best hours had arrived for the sport, but with all I could lug to the waiting team.

"The evening of the 3d day brought us to the Lake Hotel, at the foot of Yellowstone lake, where in an hour I landed 11 trout, shown in the accompanying illustration, which weighed 15 pounds; and had not a soaking rain set in, I could have more than doubled the catch."

And again he says:

"Leaving the hotel at 8 o'clock a.m. we drove 14 miles up the river to the rapids, and returned in time for supper, with 83 trout which weighed 44½ pounds.

"The Government has been stocking these 250 miles of streams since 1889, and neither novice nor expert can fail to secure his full complement of trout in any of the 15 or 20 noted streams, all easy of access."

The editor makes not a word of protest against this butchery. On the other hand, he reproduces 2 photographs, one of which shows this old fish hog standing up by a string of 33 trout, which according to the legend sketched on the picture, weighed 44½ pounds.

It is true the Government has been stocking the streams in and about the Park for several years past, with trout; not in order that a few bristlebacks may go there and kill 3 or 4 times what they should, but that the decent anglers may go and have a few hours or a few days of decent sport.

As showing you the feeling of gentlemen on this subject, a prominent business man of St. Paul clips and sends me the article in question, together with a letter in which he says:

"Please note the article entitled 'Trout Fishing in Yellowstone National Park,' by W. B. Goodsell. In one place he speaks of a fisherman's paradise, and then in another place he tells about catching 42 pounds of trout and grayling, and in another about catching 33 trout, weighing 44½ pounds, in 4 hours' actual fishing; and he even has the nerve to have himself shot with a camera, with his last mentioned catch. He should have been shot with a cannon load of canister before he got in his deadly work. And mind you, this article appears in a so-called sportsmen's paper.

"Is there not some limit as to the number of trout that one may take in a day in the Yellowstone National Park? I happen to be in a position to know something about the number of tourists who make the park trip each season, and if a few hogs, like the above mentioned, get in their work for a year or 2 more the result can readily be surmised."

The trouble is that the publisher of the aforesaid so-called sportsmen's journal is so hungry for dollars and for copy that he would not dare criticise his contributor lest he might lose a subscriber. Furthermore, he might offend this Goodsell to such an extent as to lose a possible story at some future time. It is a great pity that all editors and publishers have not the nerve to roast a man who makes a beast of himself, even at the risk of losing a subscriber or a contributor.

We must see to it that Congress passes a law next winter, placing a limit on the number of fish or the number of pounds of fish which any one man may take in a day in any waters controlled by the General Government.

FISH IN MINNESOTA.

Hopkins, Minn.

Any movement that has for its object the preservation of the game with which this country at one time abounded should

have the hearty support and co-operation of all good citizens, whether they take an active part in hunting and fishing or otherwise.

Of course the pleasanter way to bring about this result would be to educate the people up to the point where they could see the advantage of good laws and the necessity of preserving and enforcing them; but in some cases this cannot be done and it is then necessary to resort to harsher methods.

There are those who are too closely related to the hog to benefit by any effort at education. They kill fish and game just to see how many they can kill. They would take black bass with a scoop shovel if they could, and think nothing of potting a duck or a quail. Such men do not care if the game is all killed one year or the next, provided they may do the butchering. I know several places where bass were plentiful a few years ago, but an honest angler can fish a long while in those places now without finding any evidence that fish ever existed there. If you make inquiry you will hear that Mr. Berkshire Hog, or Mr. Some Other Hog used to catch 200 or 300 bass in a day in those waters.

Within the city limits of Minneapolis I can point out lakes where bass and pickerel were shot last spring and where set lines are out at the present time. In one of those lakes 15 years ago I could pick up 4 or 5 bass almost any day, but a man will stand a poor show with rod and reel there now. I fished the lake half a dozen times last summer but caught only one bass; yet the razorback that puts out a set line boasts of the number of bass he takes, though he does not admit that he takes them that way. Sometimes his children do.

Even now the fishing in this State is excellent and I do not think I exaggerate when I say there are more fish and more opportunities to fish in Minnesota than in any other State in the Union.

In the Northern part of the State lake trout abound and often reach a weight of 25 pounds. There are also salmon trout, whitefish, sturgeon, pike and pickerel in Lake Superior. In some of the smaller lakes of St. Louis, Lake and Cook counties there is a small land-locked lake trout that weigh up to 4 pounds. Black bass, both large and small mouth, rock bass, silver bass, and trout abound, one variety of trout having a white belly and another a bright golden belly. These lakes also contain silver herrings and sisco, or deep water herrings; muskalonge, buffalo, sheephead, bullhead, catfish, croppies, redhorse, suckers, stonerollers, bluegills and 2 or 3 other varieties of sunfish, perch, dogfish and German carp.

The carp have been planted by the hatcheries and multiply rapidly. They are worse than suckers at devouring the spawn of decent fish and should be killed off as soon as possible. No doubt the intention of the authorities was good in placing German carp in American waters but that does not lessen the evil. In Illinois they have practically exterminated the bass and as no self-respecting angler would either catch or eat a carp I do not see anything but injury in planting them.

The smaller streams of this State are full of chub and shiner minnows, the best minnows for bait that I know of. In putting a shiner minnow 1¼ inches long on a hook a few days ago I discovered that it was full of spawn. This was a surprise to me as I supposed they were not mature until they were 3 or 4 inches long.

Washata.

THEY SHOULD KNOW BETTER.

Enclosed is a slip, cut from our local paper the *Acadian*, concerning Mr. R. E. Harris. I wish you would roast Mr. Harris. Trout are not plentiful about here, and such a catch is an outrage. Mr. Harris is a merchant of Wolfville, and should have known better.

S. W., Wolfville, N. S.

Mr. R. E. Harris has had on exhibition a splendid display of trout, the fruits of a fishing trip. He and his companion, Dr. Saunders, of Kentville, succeeded in getting 210, many of which were large. A basket containing 30 weighed 47 pounds. The *Acadian* extends thanks to Mr. Harris for a generous share of the proceeds of the trip, and wishes him equally good luck next time.

I wrote Mr. Harris and Dr. Saunders, asking if this report was true. They replied as follows:

Yes; my friends, Dr. Saunders and A. S. Harris of Kentville and I caught, May 5, 210 trout, weighing ¾ of a pound to 1½ pounds. In less than 2 hours we caught out of one pool 125 trout that weighed the same number of pounds You might send me RECREATION for the coming year. I have taken it before but had it stopped some time ago.

R. E. Harris, Wolfville, N. S.

The report is true. A friend and I caught 210 trout in one day. They weighed ½ pound to 1½ pounds each. This same friend and I at a previous time caught 125 pounds of trout in 2 hours. Not bad sport was it?

Louis Saunders, Kentville, N. S.

It seems that Harris has not read RECREATION long enough to have shed his bristles yet. Possibly the Doctor may never have read it. I advise both men to read it carefully hereafter, in order that they may know what decent men think of fish hogs.—EDITOR.

NIBBLES.

Enclosed I send you clipping from the *Oil City Derrick*. It served them right?

W. S. Beers, Petroleum Centre, Pa.

Sisterville, W. Va.—While dynamiting fish at the head of Russell Island, George Chambers and Ed. Engemire lost their lives and Phil Roush lost an eye and was so badly hurt otherwise that his condition is critical. The men were in a skiff when one of them carelessly threw a lighted match among some dynamite sticks, causing an explosion, with the above results.

Occasionally a man works out his own punishment. In many cases courts and officers of the law are unable to apprehend dynamiters. Many a stream and many a lake in the country has been completely cleared of fish by the use of this pest of modern days. I am always glad, therefore, when I hear that a man who has been dynamiting fish has been blown out of the water himself. I wish all such vandals might share the fate of these men.—EDITOR.

Can you inform me where some small mouth black bass can be bought? What would they cost per 1,000? We want to stock a small lake, which is fed by springs.

George Schwartzkopf, Jr., Columbus, Ind.

ANSWER.

The easiest and best way to get small mouth black bass for stocking a small body of water is to seine them from some stream in your neighborhood. This species is doubtless common in the White river near Columbus and in all its tributary streams. Get permission from Mr. Sweeney, your State Fish Commissioner and one of your fellow-townsmen, to use a seine for this purpose. Put the bass in a large tub of cool water. You do not need more than 50 or 100. In fact, 25 will be ample. The probability is, however, your pond is better suited to the large mouth black bass, which is the better pond fish. You can get them in any of the bayous along the river. —EDITOR.

A TROUT HOG.

The trout season opened Wednesday, April 16, and a few good catches are reported. George Lambert took 105 out of Trout brook and others filled their baskets from different streams.—Downsville News.

One reason there are no more trout in the streams is because of hog fishermen. One of them over in Delaware county took 105 speckled trout out of Trout brook the 16th.—Oneonta Spy.

Any man who will catch 105 trout in one day is worse than a hog, for a hog does not want more than he can hold. If the Deacon of the Dairyman will visit his mirror he may see an exception. There are a plenty more.—Unadilla Times.

A man who is so much lower than a hog that he will take 105 trout, as scarce as they are, deserves lynching.—Deposit Courier.

A party of fish hogs carried away from our neighboring stream 350 trout in 2 days. The Gazette force is exempt from all this, as suckers and redfins have been their only catch so far.—Delhi (N. Y.) Gazette.

Where did these editors learn to roast pork? Can any one guess? Certainly not from the A. D. G. H.; nor from any one of half a dozen other alleged sportmen's journals I could name.—EDITOR.

J. A. Cooper returned yesterday from a fishing trip in Walker valley. He caught nearly 400 trout.—California paper.

To my inquiry as to the truth of this report Mr. Cooper replied as follows

April 15 I caught 160 trout, April 16, 171, and the morning of the 17th 48; total 378. I fished in a branch of Russian river, in Mendocum county and did not fish more than 6 hours any of the days. The trout were ordinary California brook trout, 5 to 11 inches long. I had many 8 to 10 inches.

J. A. Cooper, San Francisco, Cal.

It appears from Mr. Cooper's letterhead that he is one of the Commissioners of the Supreme Court of the State of California. By his own confession he disgraces himself and the State he represents in his official capacity by slaughtering trout. It is hoped the sportsmen of California will see to it that Mr. Cooper is retired to private life at the first opportunity.—EDITOR.

We have a small lake near here in which there are large mouth black bass, but they refuse to strike anything. I have tried jackfish and flies; also artificial minnows; but I have little success. Can you suggest any tackle with which I can hook these bass? What is the best bait for bream? Our water is clear and is 3 to 4 feet deep.

A. Darder, Anniston, Ala.

ANSWER.

Anglers in the South sometimes have good success using cockroaches when fishing for large mouth black bass. Cockroaches are also good for bream. Try them. Try also small live minnows, grasshoppers, white grubs, and artificial frog. Moderate flies of dark colors ought to prove effective. —EDITOR.

The enclosed item appeared in the Lincoln *Evening News* and is one of a number which prove the efficiency of our game warden.

A. R., Lincoln, Neb.

Two desperate violators of the law were surrounded by persistent deputy game wardens near Papillion Saturday night and unceremoniously thrown into prison. The heroes of the fray were chief deputy game warden Simpkins, his faithful deputy Nick Carter, and fish commissioner O'Brien.

The officers not only captured the poachers with several sacks filled with fish, but also gathered in a wagon load of nets, hoops and other paraphernalia. These were stacked up on the bank of the creek and burned. The fish were all liberated.

GUNS AND AMMUNITION.

Anybody can keep shooting all day, but it takes a gentleman to quit when he gets enough.

SATISFIED WITH THE SAVAGE.

I wish to say to A. G. Bevan that I used a Savage 30-30 last fall in Maine and could not wish for a better or stronger shooting weapon. The balance is perfect; the action safe and sure; and in every way it is far superior to any other gun I ever owned. Mr. Bevan will make no mistake in getting a 1900 model, 24 or 26 inch octagon barrel.

A few pointers on the care and use of that gun may not come amiss. Never put heavy oil, that will congeal in cold weather, into the magazine; it will stop it from working, as I found to my sorrow last fall. I was hunting on a hillside when I saw 2 foxes in the ravine below me. After firing at them I tried to get another shell in the chamber but the oil had thickened and the magazine failed to work. Just then a big buck came out of the heavy timber about 60 yards away and walked off unharmed. I lost no time in returning to camp and getting the oil out of the magazine.

In 1900 I was hunting in the same locality, with a '96 model Winchester, 6½ pounds, half magazine, 30-30, and found it useless with full load shells. It would whip up at least 2 inches at the muzzle, and I became disgusted with it after missing 3 of the best shots at deer that I ever had. I wrote to the Winchester people about it and was told they had made only a few of that kind and none of them were warranted. I was surprised that such a reliable firm should let a gun they could not warrant in every way leave the factory.

My Savage will shoot through ¼ inch boiler plate with soft nose bullet, leaving a hole nearly ½ inch in diameter. For a light load I use 8 or 10 grains Dupont rifle powder; 100 grain bullet, 8 parts lead to 2 parts of tin. This does good work on woodchucks and small game up to 200 yards. I always lubricate the bullets with bay wax. If the gun shows leading, shoot 2 or 3 metal patched bullets to free it from lead. Turpentine is best for cleaning a dirty gun. Saturate a woolen cloth with it and pass through barrel 5 or 6 times. Then wipe dry, use vaseline liberally, and your gun will never rust.

I think the U. M. C. people could improve their 30-30 bullet by extending the jacket farther up on the bullet. At present there is too much lead exposed and bullets sometimes mushroom or scatter in the air, especially in long distance shooting.

We had 3 Marlins in our club in 1900. They were the cause of more profanity than all other annoyances in camp put together. Paddy ought to close his trap and jump into the nearest stream, taking his would-be gun with him.

J. H. Nesbitt, Cleveland, O.

In April RECREATION A. G. Bevan, Martinsburg, Ind., asks for information concerning the 30-30 Savage. I have one of these guns. In accuracy and penetration it will equal the 30-30 Winchester every time. In their 1902 catalogue the Savage people say the 30-30 hard nose bullet will not penetrate more than 10 inches in wood because the metal cover mushrooms. A trial convinced me this is a mistake. Setting up a piece of tough fir at 15 yards, I shot into the end of it. On splitting the stick open I found the bullet had penetrated 25 inches, and, excepting a small dent in the end, was as perfect as when it left the barrel. How this rifle will compare with the .303 I am unable to say; the latter cartridge having the heaviest bullet will probably give the most penetration. As to accuracy, velocity, and trajectory, I do not think the .303 will excel the 30-30.

Roy C. Rogers, Garrison, Mont.

In April RECREATION A. G. Bevan asked if the 30-30 Savage is as good as the Winchester. I greatly prefer the Savage. It is neater and better balanced, and will outshoot any other gun of the same caliber. As compared with the Savage .303, I believe there is no difference either in accuracy or in smashing power. If you are out for big game take a Savage 30-30 and U. M. C. soft point bullets.

J. G. Parr, D. D. S., Martins Ferry, O.

LIKES THE MARLIN AND SEMISMOKELESS, BUT—.

Los Angeles, Cal.

Editor RECREATION:

I have been much amused from time to time by the gun talk in your admirable magazine. It is entertaining and instructive despite the apparent contradictions. I think I can understand why Mr. Nelson loves his Remington and why Mr. Van Dyke sticks to his 22 even after having straightened it over a log. I love any good gun, no matter whose name is stamped on the barrel.

My special favorite is a Marlin 22 (please don't laugh) fitted with Lyman sights. It is the prettiest and most accurate gun I ever looked over. Using Winchester 22 long smokeless cartridges it is a wonder.

Last fall 2 friends and I spent 30 days in camp near Crater lake, Oregon, and the little 22 furnished more dinners than any other gun in camp. In fact, its only rival was a 22 Stevens in the hands of my friend Best. Our large guns remained in their cases, because we were in a country where the noiseless 22 was just the thing.

The only drawback to my pleasure was the fact that my pet 22 developed a cranky streak. The extractor slipped over the heads of the cartridges and left the empty shells sticking in the barrel, and the action jammed. Examination showed the shells slightly swelled near the head and developed the fact that the breech block did not hold the shell firmly in place. It let the shell slip back just enough to allow the portion next the rim to swell and jam the action. The gun was but 2 months old, and I blamed myself for the trouble, thinking it due to using smokeless ammunition; but as I talked the matter over with the boys in camp I found both of them had discarded Marlin rifles on the same account. I had thought of writing the Marlin company about the matter, hoping to be able to set them right; for the Marlin is as good as the best, were it not for that infernal action which spoils the whole gun.

After I returned home I bought a 22 Winchester and 2 boxes of Peters semismokeless, and went out to try the new gun. I filled the magazine, put up a mark, and worked the lever, but nary a cartridge would come up in the gun. With Winchester ammunition the gun worked like a charm, as I found later. Examination of the Peters shells showed that the bullets had slipped back in the cartridges, as they will readily do, making them too short to be handled by the action. The Peters people need not get sore about this statement, for the fact can be readily established in court if necessary. The Peters company should fill their shells so full that the balls can not slip back. I like their semismokeless better than black powder and as well as smokeless except for the noise it makes.

The Winchester company might also take the hint and fix their gun so if the cartridge is a little short the gun woul handle it just the same.

I am not yet fully acquainted with the Winchester, but doubt if I shall ever like it as well as I could like the little Marlin—*if* it would only work right. However, I am disgusted with Marlin's attitude in this matter and unless it changes he will lose custom in this country. I should think it would pay him to hire a man to read RECREATION and learn what is the matter with his gun: then fix it properly and tell his patrons through this magazine that he has done so. The Peters company too, would better follow the same line. When they sav through RECREATION that the fault in their cartridges has been remedied, then my friends and I will try them again.

M. C. Kissinger.

STRANGE FREAK OF SMOKELESS POWDER.

I send you a 25-20 Winchester center fire shell which has been fired 3 times; once with the factory load of black powder and twice with 3 grains of semismokeless. It was used each time in a new Marlin rifle. The indenting of this, and of every one of a lot of other shells of same make and with same load, occurred at the second firing. I used Winchester No. 1 primers. There was nothing in the chamber of the rifle and the reloading chamber of tool was clean. I can not see what could have caused the dent. All the other shells were dented in exactly the same place and to about the same extent. One had another slight dent by the side of the first.

This is my first experience with smokeless powder. Have heretofore used 10 to 15 grains of black, filling the space between powder and bullet with sawdust. As that was a great deal of trouble I thought of using an equal bulk of smokeless.

Have never heard of anyone having similar trouble with smokeless powder. It surely could not have been caused by the shells not fitting the gun; they worked easily in the chamber and do so still.

Igno Ramus, Moscow, Idaho.

ANSWER.

In relation to the above Mr. J. H. Barlow, of the Ideal Manufacturing Co., writes as follows:

Have looked this matter over carefully, and have about come to the conclusion that I am a brother of Igno Ramus.

I have but one theory, which is this:

The denting was caused by air being imprisoned between the chamber of the rifle and the outside of the shell. The imprisoned air was heated by the ignition of the powder, which expands it greatly, and the instant the bullet left the muzzle of the rifle, the inside pressure became simply the normal atmospheric pressure. Then the heated expanded air exerted its power and compressed the shell inward.

I have frequently seen the same thing occur when resizing shells in a resizing tool. The forward portion of the muzzle of the shell striking that portion of the chamber or resizing die, imprisons the air between the muzzle of the shell and the shoulder, which, when driving the shell to the head, compresses the imprisoned air, and the result is an indentation, the same as in the shell sent to me.

This may not be the true reason, but it

is the best I have to offer. Should be pleased to hear the opinions of others. Such things, undoubtedly, are of interest to many readers of RECREATION.

EFFECT OF BARREL LENGTHS.

What effect do varying barrel lengths have on the trajectory of the modern small bore rifles, using smokeless powder? What is the difference in the shooting qualities of a 28 inch, 30 inch and 32 inch shot gun? Of course increase of barrel length has a tendency to efficiency, as far as accuracy is concerned, since the distance between the front and rear sight is thereby increased; but will a 24 inch or 26 inch rifle barrel shoot as hard as one 28 inches long? I believe most of us would prefer a 26 inch to a 28 inch barrel, provided the velocity was the same.

Frank Q. Rutherford, Chihuahua, Mex.

I referred the foregoing question to an expert gun maker, who replies as follows:

Generally the length of barrel influences velocity. Up to a certain length the longest barrel has the greatest velocity. This is particularly true in rifles. In shot guns where dense powders are used the same rule applies, but in less degree. The dense powder is entirely consumed in less space than the bulk powder. A 24 inch rifle barrel will shoot as accurately as a 26 or 28 inch, provided it can be held as closely. By the words "shooting hard" we suppose the party means hitting hard. The cartridge being the same, the long barrel rifle delivers the greatest velocity. In making up the figures for foot pounds striking force of the bullet, the velocity enters into the equation as the square, and therefore slightly differing velocities mean greater differences in foot pounds. This is true for both black and smokeless powders. Black powder velocities in rifles differ less with different lengths of barrels than smokeless powder velocities. In the 30 caliber rifle, using Winchester U. S. Army ammunition, there is about 100 feet difference in velocity between the 30 inch and the 26 inch barrel.

C. D. R., Hartford, Conn.

SOME PETERS ITEMS.

I note what P. R. Mills has to say about Peters ammunition. He is not far out of the way. Last fall I was in a town where I could get no other ammunition than Peters. There was plenty of that; the storekeeper said afterward that his jobbing house had unloaded on him. In 3 days' shooting with those shells I missed more birds than in all my life before. Some of the cartridges would miss fire and others would hang fire 15 seconds or more. When one got off while a quail was in sight it would knock feathers off the poor bird and veil further proceedings in clouds of blue smoke. I had similar experience with their 22 rifle shells. In one instance one hung fire 30 seconds by actual count.

Dr. J. R. Verne, Farmington, Minn.

A laughable incident occurred as I was wandering around the Garden during the Sportsmen's Show. I stepped up to one of the booths and asked a young red haired mick if he could tell me where RECREATION's booth was.

"RECREATION is a thing of the past," said he. "That's a magazine that is dead;" and off he went on a long, jumbled tirade against RECREATION. When I recovered sufficiently from my surprise at this outburst I looked up at the sign and read "Peters Cartridge Co."

L. G. Warren, Stamford, Conn.

I think the Peters Cartridge and Powder Co., make a big mistake in leaving RECREATION. It was through your magazine that I bought their ammunition. If they had not been advertising in RECREATION I should not have thought of trying their powder. E. L. Cobb, Portland, Me.

STRAIGHT GROOVE RIFLING.

In April RECREATION A. Kennedy, of Missoula, Mont., speaks of an old muzzle loading rifle having straight grooves from breech to muzzle. That system of rifling is supposed to have been invented by Gaspard Zollner, of Vienna, in the latter part of the 15th century. Although in theory no increased accuracy was given to the fire by such grooving, yet in practice, the accuracy was better, because the grooves allowed the windage to be diminished, and formed receptacles for the residuum of powder and ash, which in smooth bores lodged on the surface of the bore, causing wild shooting after a few discharges.

The rifle seen by Mr. Kennedy is a rare specimen, and would be justly prized by a collector of antique arms. Doubtless it has been altered from a flint to a percussion lock.

Some years ago, I was told by an old gentleman from Wenham, Mass., that his grandfather, who was a great sportsman, used to scratch the inside of his long smooth bore gun before competing in a shooting match with round ball. A little 4 or 6 prong iron tool was fastened to the ramrod and forced straight in and out of the gun, making small straight grooves the entire length of bore. Better scores were made with the scratched guns than with plain smooth bores.

Those who are shooting round ball from their cylinder bore breech loaders, might get a hint from the practice of long ago,

and have 6 straight grooves cut in one barrel. Possibly that is just the thing needed. Whoever tries the plan, let us hear about it in RECREATION.

P. W. Humphreys, Clarksville, Tenn.

NO FOREIGN GUNS FOR HIM.

What advantage any American sportsman expects to derive in buying a foreign made bolt action military rifle instead of an American built high pressure sporting rifle, such as the Winchester, Savage or Remington-Lee, is more than I can see. The lines of foreign sporting rifles are bad enough, but their military rifles are frights. They are built like a club; look and handle like one. If one must have a bolt action, buy the Remington-Lee; if a musket, the Savage Arms Co. build the best in the world; and in reliable, well made hammer rifles the Winchester '94 model with 28 inch barrel is a sure winner. No prettier or better hanging rifle was ever built. The present high state of perfection in rifles was developed this side of the Atlantic by American brains. What sense there is in American sportsmen cracking up the Mauser musket for snorting use is beyond my comprehension.

I beg to differ from J. N. Nichols in regard to DuPont No. 1 smokeless not injuring a rifle barrel. I know by experience that it will spot a barrel even after thorough wiping. Fire a charge of black powder from a gun after using smokeless and it will be all right.

In answer to Repeater, as to how to secure best results with the 44 powder and ball revolver, will say he does not need to use wads in loading. Use King's semi-smokeless f. g. powder. See that the bullets are well lubricated and you will get as good results as are possible with that kind of an arm.

H. P. Pettit, Fort Atkinson, Wis.

A SUGGESTION FOR GUN CLUBS.

We are anxious to get some stringent game laws for Indian Territory. Netting of quails was prevalent up to last year, but our gun club prosecuted a few of the culprits and has liberated many hundreds of quails the past season. Our streams are being dynamited, but so far we have not been able to catch any of the rascals. Our club makes a standing offer of $25 for information leading to the arrest of any guilty party, yet we are not sure we have any law to punish the culprit.

Our club consists of 30 members and we are soon to give a big shoot. I suggested the idea of making one event a RECREATION shoot. I will go among our people and see how many subscribers I can get and will also get as many visiting sportsmen as possible to subscribe. The premiums you offer will be given to the most successful contestants. If I succeed in getting 60 or 70 subscribers it will enable us to give several prizes of various values. After the shoot we will let the successful ones select their prizes from your list. In this way I hope to secure from RECREATION much valuable help in suppressing our game hogs.

The majority of our sportsmen here have agreed not to kill over 20 quails in one day, though it is easy to kill 2 or 3 times that number with a good dog. So you see, although we have no law, save that bred in the hearts of all true sportsmen, there are many of us not game hogs.

W. P. Poland, Ardmore, I. T.

LIKES THE MAYNARD.

I have a magazine 25-20, '82 model, which is perfect up to 100 yards. Have never tried it for greater range, but am fitting a telescope to it and intend giving it a rest. I generally carry it with me as I drive about and frequently find use for it on woodchucks.

I see some of RECREATION's readers have trouble in preventing their small caliber rifles from rusting. I have owned mine 10 years and it is as bright to-day as when bought. I have had guns of all sizes from 22 calibre to 12 gauge and have no trouble in keeping them bright. I clean thoroughly with gun grease, soft rags, plenty of elbow grease and a wooden rod. Then I put a clean oiled rag on my wiper, run it through the barrel and leave it there, and the barrel never rusts. The rod should nearly fill the bore of the gun.

As for the power of the 25-20 I find it ample where small game is concerned and I think it large enough for deer. A friend had a horse weighing about 1100 pounds which had lockjaw. A single shot from my Maynard killed the animal instantly. I consider the Maynard the handiest single shot made, and I should like a 30-30 barrel to fit my present gun. I believe others would be likely to buy extra barrels if they could get them.

If any reader wishes to fit a telescope to his rifle I can tell him where he can get a good set of hangers for less than $15.

J. N. Shumway, M.D., Painted Post, N. Y.

SEMI SMOKELESS AND DUPONT.

Occasional charges of Peters semi-smokeless will burn clean, scarcely fouling the gun at all; while in most short shell guns it leaves a tarry substance in the rifling that is extremely hard to remove. This is especially noticeable in 44's, 38's and similar guns; though their velocity, penetration and

accuracy are not impaired by it. Smokelessness does not always mean cleanliness. I would rather have DuPont black rifle powder than all the semi-smokeless ever made. It is clean, and as for strength it can not be beaten.

I own a 30-40 Winchester, box magazine. Its bullets do not fly to pieces on a bone just under the skin as shorter high power bullets sometimes do. I am sufficiently familiar with 23 different styles and models of repeaters, and 11 styles of single shot rifles to distinguish them apart or work them blindfolded. Fully two-thirds of the repeaters are good for 2 shots a second, and some for 3 a second when clean. No 2 repeater systems have the same feel. I have seen many a new gun, of various kinds, clog in awkward hands; but I have never had a clean gun clog with me yet. I always take the trouble to get used to the feel of the lever, or bolt, that works the magazine, before firing the gun. I pick out the cartridge I wish to use and then choose the gun best adapted to it; and I find that a good rule.

Rodney West, Minerva, N. Y.

ADVANTAGES OF TELESCOPE SIGHTS.

What is the meaning of the terms "achromatic" and "non-achromatic," as used in the circulars of makers of telescopic sights? What are the special advantages of such sights? J. E. Bates, Spokane, Wash.

ANSWER.

The term "achromatic" means free from color. An achromatic lens is one usually composed of 2 separate lenses, a concave and a convex, and of glass having different refractive and dispersing powers as crown and flint glass, with the curvature of the surface so adjusted that the chromatic aberration (that which causes color from the decomposition of light) produced by the one is corrected by the other, and the light emerging from the compound lens is undecomposed.

A non-achromatic lens is one in which color is apparent when looking through it.

The telescope sight has some advantages over other sights; for instance, one can find small game in trees where it would be concealed from the naked eye. One can see just where to place the bullet without mutilating the game. One can see the condition of the game, whether it is fit for the table or not. One can see just what he is shooting at, lessening the liability of many accidents; but for hunting where the game requires a quick shot, the Lyman sight is preferable.—EDITOR.

DOWNWARD FORCE OF BULLETS.

If a rifle is plumbed and fired into the air, with what force will the bullet strike the ground on its return in proportion to the force with which it left the gun on its upward flight? And what would be the downward force of shot under same conditions?

Carlos L. Smith, Montpelier, Vt.

ANSWER.

The velocity of the 30-40 U. S. A. bullet when it reaches the earth's surface after being fired upward can be taken to be approximately 120 feet a second. There is a mistaken popular belief that the bullet under the conditions named returns to the earth at the same velocity with which it left the rifle barrel. The bullet, on the contrary, is retarded by the resistance of the atmosphere in its descent, and does not attain a high velocity.

The velocity of shot under the same conditions can not be calculated on account of the lack of suitable data and tables. It is, however, a much simpler problem to determine by actual test, and would be just about the same as the velocity of any given size at the extreme range. This could readily be determined with any good chronograph.—EDITOR.

STANDARD AMERICAN RIFLE TARGET.

Please tell me the dimensions of the standard American target for off hand rifle shooting at 100 yards. Also, of whom they may be bought and at what cost.

Geo. F. Mapes, Penn Yan, N. Y.

ANSWER.

The standard American target for 100 yards is reduced ½ from the 200 yard target, the dimensions of which are as follows:

10 ring	$3\frac{36}{100}$	inches	in	diameter	} Bull's-eye
9 "	$5\frac{3}{4}$	"	"	"	
8 "	8	"	"	"	
7 "	$10\frac{1}{4}$	"	"	"	
6 "	$12\frac{3}{4}$	"	"	"	
5 "	$16\frac{1}{4}$	"	"	"	
4 "	$20\frac{1}{2}$	"	"	"	
3 "	26	"	"	"	
2 "	33	"	"	"	
1 "	$41\frac{3}{4}$	"	"	"	

The best book for rules, etc., relating to shooting with rifle, shot gun and revolver, is a little handbook published by the Union Metallic Cartridge Co., Bridgeport, Conn., which is mailed to anyone on application.—EDITOR.

SMALL SHOT.

Recreation rifle club was organized at Auburn, N. Y., some weeks ago and is in a prosperous condition. The officers are R. F. Emmons, President; William McKay, Captain; W. H. Dedrick, Secretary and Treasurer.

RECREATION extends its hearty thanks for the honor conferred on it by the club in the choice of a name.

In April RECREATION Mr. Lewis disputes my targets made with an Ithaca 16 gauge gun. No doubt there are others who discredit my story and call me a gun crank. If they will come here I will duplicate the targets in their presence. Or if they don't fancy the trip, I can refer them to 14 men who saw me make the targets.

John Nordstrom, Gothenburg, Neb.

Many sportsmen agree that the box magazine is in every way superior to the tube magazine. All who think so should write to the manufacturers urging them to build box magazine guns in all the popular calibers. I have an old revolver that shoots at least 6 inches too high at 30 yards. How can I remedy the trouble?

G. W. McKay, Kelsey, Minn.

I can say to A. J. Lang that the 25-20 is a reliable and accurate cartridge. I am using it with great satisfaction in a Stevens No. 44. I advise W. S. Meade to buy a 25 rather than a 32 rim fire. If he does not care to reload his shells, he can use the 25 rim fire and still have a better cartridge than any 32.

C. S. Edwards, Auburn, N. Y.

I advise P. B. M., Quaker Hill, Conn., to buy a Stevens Favorite. It is accurate and just the thing for squirrels and rabbits.

C. G., Syracuse, N. Y., will find Winchester gun grease far better than vaseline to prevent rusting.

L. R. Nelson, Greenville, Ohio.

In April RECREATION A. Kennedy, Missoula, Mont., describes a weapon he has seen, as a cross between a shot gun and a rifle. In Sweden they call them "straight rifles." I have used one and found it of good shooting quality, both for round ball and for shot.

P. Olson, Argyle, Minn.

I wish to say to Mr. Rawson regarding his inquiry in May RECREATION about his Parker, that if he holds it right he will find it a good gun for any kind of shooting. There may be other guns as good, but there are none better.

F. S. Furguson, Lou City, Ohio.

I have used and experimented with most kinds of shot gun shells. I have never had a Winchester shell miss fire. Of Peters shells I have had 4 out of 25 miss fire, but those that exploded did their work as well as could be wished.

Geo. Clapper, York, Neb.

I wish to say for the benefit of J. D. Snyder, of Lowell, Ohio, that the Union Metallic Cartridge Co. makes a 22 short mushroom bullet. They are sold by the H. H. Kiffe Co., 523 Broadway, New York City.

R. H. Furner, Lima, N. Y.

Will someone kindly inform me what gun is best for the big game of South and Central Africa, and if an 8-bore is a necessity? Which is best as a game gun, the 30-40 or the Lee straight pull Winchester?

Edward Shine, New York.

I want an ejector gun to use exclusively for ducks, wing shooting. Am looking for a sportsman's weapon; not a market hunter's. Will some experienced duck shooter please advise me through RECREATION?

C. F. Dill, Greenville, S. C.

I think it a mistake to load a 12 gauge gun with 2¾ drams powder and 1⅛ ounces of shot. I use 3½ drams of powder and ¾ ounce of shot and get better results than from the standard load.

Adirondack, Alder Creek, N. Y.

I would say to Repeater, Jamestown, N. Y., do not use wadding over either powder or bullet in an old fashioned army revolver. If Repeater will send me his address I will write to him.

Hubbard G. Owen, Romer, Mich.

A good gun for rabbit and squirrel shooting is the '90 model Winchester 22 special. The Stevens Favorite, 25 rim fire is also good. P. B. M. will make no mistake in buying either.

H. C. Clippinger, Akron, O.

I should like to hear through RECREATION about the Winchester 22 caliber, greaseless bullet cartridge. Is it better than the ordinary lubricated cartridge?

A. L. Taber, Los Angeles, Cal.

Will someone give me a few hints on choosing a rifle for squirrel and rabbit shooting? Should I buy a 22, a 25 or a 32?

Buck, Akron, Ohio.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

MR. HORNADAY IS RIGHT.

Your correspondent, Mr. W. T. Hornaday, made an error in judgment in trying to portray the good qualities of eagles, in reply to my former article. As emblems of various sorts these mischievous birds have been idolized by superstitious and sentimental classes for thousands of years. Eight hundred years B. C., emperors believed eagles could carry their souls from earth to heaven. When used as standards eagles have been represented as holding thunderbolts in their talons, were among the gods worshipped by the ancient Romans, and are represented with Jupiter in mythology. Like the bear for Russia, the lion for Britain, etc., the likeness of an eagle on coins or arms of Uncle Sam is appropriate and unobjectionable, but only a taxidermist can make either creature a comfortable pet or a safe neighbor; therefore why make unnecessary efforts to perpetuate them? The only perfect emblem of liberty and independence extant, pride and boast of 75,000,000 freemen, who will always uphold and defend it, is the flag of our country, the glorious old stars and stripes. Your eagle professors can never lead me in love, respect, and admiration for that matchless emblem, the red, white, and blue symbol of the American Union; and Mr. Hornaday's letter sharing the glory of that flag with a live eagle, thus dimming the splendor of the banner, was like an attempt to amalgamate pure gold with alloy. The men who "hoe corn or drive team," to use the professor's words, and men of their class, are the mainstay of the country, patriotic and sensible, and will not sanction his ideas. Because a few sentimentalists, with an axe to grind, glib tongues, and trenchant pens can bamboozle a Legislature into passing a law protecting eagles, it does not follow that an appreciable number of residents of the State approve it. Because a professional biologist places a deadly enemy of game and domestic animals, a wholly wicked and dangerous bird, on an equality of adoration with the American flag, is no indication that others, of whatever talents, but with plenty of good Yankee sense, will be hoodwinked or swerved from a practical and proper idea of the fitness of such things. I await a sensible reason why a raptorial bird should be protected by statute. While I never advocated extermination of eagles, I object to penalties for shooting them. They are often an unmitigated curse near civilization, and when detected raiding pasture or farmyard, should be dealt with like any other chicken thief, whether on wings or legs. Besides, eagles are amply able to care for themselves and are neither in present nor remote danger of extermination.

Payson.

ANSWER.

If you knew Professor Hornaday as well as I do, and as well as thousands of other men know him, you would get on your knees and apologize to him for having referred to him as a sentimentalist, with an axe to grind, a professional theorist, etc. There never was and never will be a more earnest, practical, conscientious working naturalist than W. T. Hornaday. He never makes a statement at random, nor without careful consideration. He never makes a statement he can not prove by abundant and unquestionable evidence. His judgment as to wild animals and birds is accepted without question by every well informed nature student in this country and in Europe; and for you to assume to criticise his defense of the American eagle is a piece of presumption that will receive the hearty condemnation of thousands of such men.

There is perhaps no bird or animal native to this country that has been belied more persistently than has the eagle. Thousands of stories of his raids on fields or barnyards, and even on children playing in dooryards, have been manufactured out of whole cloth. I grew up on a farm in the West, and for many years since leaving the farm (more years than I like to recount) I have hunted, fished and studied nature in the various States of the Union where eagles live; yet I have never known an eagle to kill a domestic fowl, a lamb, a pig, or to destroy any other kind of private property. Neither have I ever talked with a man who has seen an eagle do any of these things. This does not prove that eagles do not raid farms or poultry yards at rare intervals, but it does disprove in a great measure many of the serious charges made against the national bird.

Mr. Hornaday has devoted his whole life to the study of our native birds and animals. He, like myself, was graduated from a Western farm. He has traveled nearly all over the world, and when he says that the eagle is a practically harmless bird; that he should be protected by law, and his species perpetuated, I believe it. So does every other man who knows Professor Hornaday.—EDITOR.

REPLY TO MR. COVERT.

T. F. Covert, Beaver Falls, Pa., asks the cause of the tapping sound in the drift. My opinion is there were several German carp feeding under that drift. He says the water was shallow about the drift, which is contrary to my observation in similar cases, but I have seen carp feeding in shallow water. The drift would hide them.

In September, 1898, a friend and I were fishing for bass on Fall creek, and heard similar tapping. It came from an old stump below and on the opposite side of the creek. We moved down to a sand bar about 60 feet from the stump and were quiet a while. As long as we remained out of sight the tapping continued. As soon as we would rise we would see a wave from the stump, caused by Mr. Carp moving to deep water. I am told the noise is caused by the carp sucking the moss or any eatable it may find on the stump. The carp has a sucker mouth and will make this noise when caught, by closing and opening its mouth. The moving of the drift was caused by the carp's tail striking it.

Last fall my friend and I went to Lick creek to catch bullheads and sunfish. We came to a drift in the afternoon. I stepped out on a big elm that had fallen across the creek. We were having a great run of bullheads, when right under me and not 3 feet from me I saw the drift move. At first I supposed it was a small turtle that was causing it to move, but as the drift continued to move at intervals of 2 or 3 minutes I decided that it was a carp. I told my partner to drop him a line. No sooner had the line dropped than a big carp snapped it.

We had willow sprouts for rods and a short line. The fun was fast and lasted only a short time. The carp was too heavy for us to lift on the bank and soon broke loose. By this I do not intend to say the carp is a bass and will snap up any bait that suits his fancy. I have fished for him days without landing one. That carp was feeding and the worm dropped in the right place.

L. E. M., Warrington, Ind.

In this part of the country tapping sounds similar to those described by Mr. Covert are made by fish belonging to the sucker family. They are here called quillbacks. That is probably only a local name. They frequent deep, quiet pools, especially such as are covered with light drift. They appear to feed wholly on vegetable matter, such as moss and scum. Weed and grass seeds that lodge in drift are, when they begin to sprout, also eaten by these fish.

Quillbacks are flat and thin, as bony as shad, and never weigh over 2 or 3 pounds. In color they are silver white, the dorsal fin is 3 to 4 inches long, and the mouth is small. Underneath, the body is a perfectly straight line from mouth to tail, but the back is greatly rounded. They are not considered food fish, and can not be caught with hook and line. They may, however, be taken by spearing.

G. L. Martin, Marshalltown, Ia.

Replying to Mr. Covert: While fishing on Boguechith creek, Mississippi, I saw and heard the same thing he writes of. I made a close investigation and found that the noise was caused by a small species of turtle that lives in our creeks and lakes down here. Like the buffalo fish, these turtles deposit their eggs on driftwood, bark and chips. While doing so they strike the under side of their bodies against the drift and that causes the knocking sound. They all have a hard strip of shell across their body that hits the drift while depositing their eggs. The eggs are hatched by the sun at some future time. The eggs adhere tightly to the driftwood and are about the size of No. 6 shot.

W. E. Davidson, Jackson, Miss.

In answer to T. F. Covert's inquiry in March RECREATION would say that the peculiar sound and motion which he noticed in floating debris was caused by suckers, buffalo fish, carp or other fish having sucker mouths. The noise is made while they are feeding, and their movements, of course, disturb floating objects. If Mr. Covert will watch goldfish in an aquarium while they are taking moss, etc., from stones or the sides of the tank, he will see how the sound is made.

M. A. Stempel, Macedonia, Ia.

A HUGE WHAT?

Lynn, Mass.

Editor RECREATION:

One summer afternoon about 10 years ago I was sailing along the shores of Nahant with Mr. Stephen Woodward, Dr. Warren and his niece, all of Lynn, Mass., Mr. Cobb, Superintendent of Chestnut Hill crematory, Boston, Mass., and a man named Mr. Charles. I was acting as skipper of the boat.

We were passing a weir on the Nahant shore when an unusual commotion in the water attracted our attention. It was apparently caused by some kind of a fish. I sailed the boat as close to the weir as the guy ropes would permit, then tacked and sailed past the weir 3 times, the fish in sight all the time. Some of the party were timid and wished to go away and as there was nothing to be gained by a further scrutiny we went away, leaving the fish still swimming about in the weir. He was at

least 20 feet long, of a grayish color, his body shaped like an eel, with the same vertical oval tail with rounded end. His body was about 10 inches in diameter, but he differed from an eel in respect to his head, which was flattened across the forehead, with eyes bulging like a frog's. On each side of his body, back from his head about 2 feet or less, were 2 feelers about 10 inches long. About 6 or 7 feet behind them, on his back, was a long fin like a dorsal fin on a shark. Taken altogether he was a puzzle and I should like to know what he was. He moved with a great show of power, especially when turning around. I have sailed a yacht in the same water more or less every summer since and have never seen or heard of him. I presume he broke out of the weir, as it would not hold him a minute after he got desperate.

Geo. F. Hogan.

On receipt of the foregoing letter I wrote Mr. Hogan as follows:

Your letter is extremely interesting. It is a great loss to science that some of you who saw the remarkable fish you describe did not kill it, and thus enable some scientist to study it. It would have been well if you had let the timid man go away while the rest of you staid to see the fish. If you can send me any further particulars regarding it, I wish you would kindly do so.

It is impossible to say what the specimen may have been. I should be inclined to think that in the great excitement of the moment his size was to your eyes exaggerated, and that he is a monster eel with some deformity or abnormal development.

I also wrote the men named in Mr. Hogan's letter, asking them to send me a description of the monster as they saw him Dr. Warren replied as follows:

The big fish was in the weir, slashing from one end of it to the other. He seemed to be caught there. He probably went in after fish to eat and was trying to get out when we saw him. We did not dare go too near, as I had my niece with me. The fish's body resembled that of a large eel and the motion was the same. He seemed to have one or 2 fins on top of his back, as well as I could see, and I should say he was 40 to 60 feet long. When he was going through the water from one end of the weir to the other he was enough to scare anybody. The water was all foam where he lashed it.

Dr. Warren, Lynn, Mass.

NO DANGER OF BELGIAN PEST.

In January RECREATION, page 42, there appears a communication from one R. L. Montague, of Oroville, California, stating that Belgian hares are running wild in Butte county and "have increased enormously of late years."

That statement looks much like the old newspaper claims that Belgian hares will ruin the farmers and fruit growers of the United States. Though disproved time and time again, these articles still appear.

Belgian hares will never exist in a wild state in this country, for 2 reasons. First, they are a domestic animal and must depend, like other domestic animals, on the protection of man. It would be fully as reasonable to fear that our peaceable domestic hen might escape from confinement, increase at an enormous rate, and ruin the poor farmers' crops! The Belgian hare, as now reared by Belgian hare breeders in this country, does not exist in a wild state in any country, being solely a made breed, the result of crossing several distinct species, and upbreeding from them by careful selection. Second, the Belgian hare will cross repeatedly with any native species of rabbit in North America, as has been frequently proved; and even if the Belgian hare, on escaping, should develop sufficient instinct of self-preservation to survive, it would be bred out in a few generations by crossing with native species, owing to the great preponderance of the latter. Such crossing could only result in a slight betterment of a few individuals of the native species, making them possibly a little larger, and their flesh and fur of a better quality. This result, all readers of RECREATION will agree, would be most desirable.

On noticing Mr. Montague's article, I wrote him asking him how many of these Belgian hares he could supply, stating in my letter that I would make it exceedingly profitable for him to capture these wild Belgians and ship them East to me. The gentleman never replied, in spite of the fact that I enclosed a stamped reply envelope. That he received my letter is evident, for the time for its return, if undelivered, has long since expired. I also wrote to the postmasters at Chico and Powelton, both in Butte county, California, asking them if there were any wild Belgians in that county. The postmaster at Chico replied, "No wild hares around this section of the country." The postmaster at Powelton, Mr. C. Henry, replied, "There are no Belgians in this country, none ever having been imported to this section." I also wrote Dr. David Starr Jordan, Chief Warden of the California L. A. S., on the same subject. Under date of January 28, Dr. Jordan wrote, "There has been some fear in California that the Belgian hare would run wild and play the same havoc in cultivated fields that its relative does in Australia. I have, however, not heard of any case of this kind. I will write to friends in

Oroville to find out what I can in regard to the alleged pest in Butte county." Again, under date of February 7, Dr. Jordan wrote: "I have looked into the matter referred to in your letter of the 24th ult., and I find no evidence that Belgian hares are running wild in Butte county."

Let Mr. Montague now come forward and defend his statement, made in January, 1902, RECREATION.

Wilmon Newell, Wooster, Ohio.

PROVIDING HOMES FOR BIRDS.

Milwaukee, Wis.

Editor RECREATION:

Last year I had 15 pairs of purple martins in my 26 compartment bird house, and who reared 45 to 60 young martins.

About 8 pairs of old birds returned early for the season of 1902. The young birds generally return about May 10th.

I had some trouble to get a pair of tree swallows to nest in a separate house, year before last, and I experimented with the size of the entrance, until finally the swallows were able to enter and the English sparrow not, as I thought. The tree swallow is a fighter, and will whip a sparrow, or, for that matter, a purple martin, in the open; but when the sparrow once gets inside the house, the swallow will not follow in, but will give up the house. The swallows kept the sparrows away at first, and the entrance being small for the English pups, the swallows were able to raise a brood of young. After the young swallows had left the house, I one day observed a male sparrow enter, after hard work. A wren being also about to take possession of the house, I drove a nail in the center of the entrance, allowing Mr. Wren to enter on either side of the nail, and Mr. Sparrow gave up in disgust.

Last year I fastened a small flower pot to a pole, with wire, and enlarged the water drain hole to suit the tree swallow's size. The sparrows, although numerous, never molested the swallows, who reared a brood. The tree swallows are here again, but the sparrows go into the flower pots this year. Can any of your readers give dimensions of hole which tree swallows can enter, and sparrows not?

Will bluebirds enter gourds? I understand sparrows will not enter nesting places for martins, made from gourds, suspended by twine, and swinging freely. As I have no gourd at hand to make a bird house of, I shall suspend a flower pot by a cord for an experiment.

The sparrows drove out of their house the only pair of bluebirds that came around here to nest for 10 years, but I shot the sparrow that intereferced, and lowered the house so it is only about 6 feet from the ground. The sparrows did not like this, and am in hopes, with good luck, to raise a set or 2 of young bluebirds, as the old ones are again building in the house.

Following is an article I wrote to the local *Daily Journal* a short time ago:

Last year I had a single house wren, who was a bachelor, built his own nest, but apparently could find no mate. This same thing was the case in 1900, the bird staying about all summer. Can any of your readers explain why the bird failed to secure a mate? I can not say it was the same bird both seasons, but each year only one bird was about and each built a nest. Careful watching and examination of the nests after the bird left in the fall failed to show that young birds were raised therein.

The sparrows are plentiful here, but the purple martins, when once located, will fight them to a finish, and whip them every time. There appears to be a general idea that English sparrows drive away all other birds. Careful observation for the past 10 years goes to show that not more than one sparrow will attack another bird at a time and then only when both birds want the same nesting place.

Blue birds are scarce now, and seem to nest in the woods instead of in bird houses as formerly.

Fred Wahl.

CONVINCED THAT LYNX DESTROY DEER.

I read in May RECREATION the article "Does the Lynx Destroy Deer." Several years ago, in January, my father, the late Chief Pokagon, and I were crossing Black river, in this State, with a yoke of oxen and a sled. We were startled by a strange bleating on shore to the right of us, and at the same time we saw a whirling about in the brush, which at first appeared like a small wirlwind, but in a moment we saw "suc-se" (a deer) struggling to free herself from "bi-su" (a lynx). Father grabbed from the sled a stake which he used as a war club, and tried to beat the brute off the deer. "Bi-su" escaped the war club and skulked away out of sight. Our sympathy was awakened for poor "suc-se," that lay prostrate on the ground, and we raised her up. She was a large doe, but to our surprise she was dead. We skinned her and found that her throat was severed, and neck mutilated in a frightful manner. We took the skin and saddles home with us, after staking down the remains of the animal, beside which we carefully set a large bear trap that we happened to have with us.

The following morning we went back to the battleground. We found "bi-su" caught by one fore foot in the trap. Father walked up toward the brute with a heavy war club, and struck at him. "Bi-su" dodged the blow and jumped toward father with such ease as led him to believe "bi-su" had freed himself from the trap. Again and again father repeated his blows, followed by the desperate leaps of the brute, determined to foil his adversary. Finally by a well directed blow, father struck the lynx on the head and "bi-su" breathed his

last. He was of great size. Our people have always regarded "bi-su" as a destroyer of "suc-se."
Chief Charles Pokagon, Hartford, Mich.

Referring to Mr. Gilmore's experience in Colorado, and the query, "Does the Lynx Destroy Deer": Three years ago last fall, I was hunting deer in Northern Wisconsin. Our camp was in a part of the woods where lynxes were plentiful. Early one morning, an hour after leaving camp, I, with my companions, came upon the carcass of a deer, the throat and shoulder torn, bleeding and partly devoured. Although the weather was freezing, the body of the deer was warm and limber. The deer had been dead but a short time. It was a fawn, apparently in good condition, and we could discover no wounds on its body, other than those made by the animal, which, apparently, had been devouring it when frightened away by our approach. There was no snow at the time, and tracks could not be seen, but there was evidence of a struggle. The fawn lay a few steps from the edge of a lake, where it had probably been drinking when pounced on by the beast which destroyed it. We were convinced the fawn had been killed by a lynx. We found lynx tracks numerous when the snow came, and several of these animals were killed in the locality. There were no wolves or dogs in that vicinity.
J. S. Edmond, Janesville, Minn.

SHREWDNESS OF MINK.

The Delaware river is famous for its suckers, which the natives of this region consider a great delicacy in the winter and early spring. The suckers begin to run up stream as soon as the ice breaks up. The ordinary way of catching them is with a hooped fyke, made of cotton twine. Sometimes more are caught than can be consumed and for convenience they are put in a perforated box and kept alive in pure running water. They can then be dressed for the table as wanted.

In March, 1880, I had a fine box of these fish in a small brook near the house. They kept disappearing night after night, in lots of half a dozen at a time. As I had a good bulldog lock on the box I could not account for my losses. The box showed no indication of having been disturbed. In the lid, which was 6 inches above the water, was a round hole 2½ inches in diameter. Examining this hole, I found signs of some small animal having passed in and out, so the next night, there being a bright moon, I armed myself with a gun, took a position on a bank near, and awaited developments. In an hour I saw a dark animal approach with all the air of being thoroughly acquainted with the premises. He quickly scrambled on the lid and disappeared in a twinkling through the hole. At that moment a larger mink appeared, and then another. The last comer boldly mounted, and passing by the large mink, disappeared through the hole.

Presently I heard the fish splashing and saw the large mink put his paws through the hole, pull forth a fish and lay it down. Immediately one of the minks came out, seized the fish and disappeared with it in the shadow of an overhanging bank. Then there was more splashing and the large mink reached in again and abstracted another sucker. Out popped the other mink, and made off with it after the first. Then the large mink went in, caught a sucker and tried to push it upward through the hole. After repeated trials he suddenly emerged without the fish and springing down took the trail of his companions. In a few moments he came back followed by the others. All immediately scrambled on the box again and the large one at once disappeared down the hole. Soon a fish was pulled forth by one of the minks on the outside and carried off. This the others repeated. By that time the first was back and duplicated the order and thus they kept up the performance until the fish were all gone except a pickerel weighing perhaps 5 pounds.

When the mink attempted to kill him there was an unusually loud splashing. The accomplices outside peered down anxiously at the battle. Presently they, too, entered the box, when taking advantage of the noise I placed a flat stone over the hole and had the thieves secured.

I left them until morning, and as their pelts were salable, killed them. The stolen fish were carried about 50 feet and deposited in an old stone wall. Every one had been killed by a bite in the back of the neck, severing the vertebral column.
M. L. Michael, North Water Gap, Pa.

HIS PET COONS CALLED.

The Natural History department of RECREATION is both interesting and instructive, and to me is one of the best features of your excellent magazine. Some of the statements made by contributors to this department are surprising to say the least. One asks, "Do grouse drink?" and another asserts that they do not. Another wishes to know if coons can call, and somebody comes up to say that they can not. I have never seen a grouse drink, but in their general make-up and habits they seem to be not unlike other birds that do drink, so I simply take it for granted that grouse drink. However, I can make the positive statement that, at least, some coons do give a loud call. The nearest approach

to it in sound, that I ever noticed, is the call of a skunk, though the 2 sounds are not the same. Most of my observation concerning coons was made on a pair I once had for pets. They were taken about June 10th, out of a tree that had been cut down for wood, and when taken were about the size of a common rat. They were brought up on a bottle and so became very tame. This was done by one of my neighbors who afterward tired of his pets, and I got them about August 1st. They were allowed their full liberty, going where they pleased, having a nest up on the woodpile in the shed. Those coons could call, and in a way that would touch one's heart, especially when they were teasing for maple sugar or cherries, of which they were very fond. I have taken a lump of sugar, given them a taste, and then held it out of their reach, allowing them to crawl over me in their efforts to get it, and what I listened to was no owl chatter; it was coon chatter, pure and simple. I have observed many other conditions under which coons call.

E. T. Wheelock, Swanton, Vt.

MULE VS. BLACKTAIL.

I have just read in RECREATION the inquiry of Mr. Morris, of Florence, Mont., as to how to distinguish blacktail deer from mule deer and your answer thereto. You say that the blacktail deer is almost identical with the whitetail deer, except that its tail is black on the outside; and that the mule deer is the same as the blacktail deer, only its ears are shaped like a mule's. I have been hunting and killing deer in New Mexico, Western Texas, Arizona and Old Mexico the past 23 years and your answer to Mr. Morris interested me. I have never seen but 2 mule deer; that is, animals that were called mule deer by old Western sportsmen who ought to know. Those 2 deer were killed by George Sligh and Will Lane, on the South slope of Carizo mountain, Lincoln county, New Mexico, in the winter of '81. The largest one weighed 450 and the other 325 pounds. The fat on their hams was an inch thick. They looked something like a blacktail, only they did not have any horns. It is my opinion, formed from the suggestions of old hunters, that the mule deer is a cross between the blacktail and the elk and is alluded to as the "mule deer," not because it has ears like a mule, but because it is "muley"—without horns. The ears on those 2 deer were just like those of any other deer. All species of deer have the same kind of ears, only those of the whitetail are larger in proportion to the size of the animal than those of the blacktail. The whitetail deer is only about half as large as the blacktail and his tail is 3 times as long. When he runs it flaps up and down while Mr. Blacktail keeps a tight grip on that appendage as he bounds along. J. D Lea, El Paso, Texas.

NATURAL HISTORY NOTES.

Does the English ringneck cock pheasant naturally crow like a domestic cock? If not, then I have one that is a curiosity in that respect. He will stretch up his neck, throw back his head and crow in almost exact imitation of a bantam cock. During the performance he looks as if he was trying to swallow his tongue. Have watched him often at close range and am certain the sound is not an abortive attempt to utter some other cry. At times he makes a sound similar to the k-e-o-u-k of a turkey. My birds are penned close to the poultry yard and I sometimes think the cock has learned a trick from chanticleer.

A. C. Thatcher, Urbana, O.

Man could not live in a birdless world. A French naturalist asserts that if all the birds in the world were to die suddenly human life on this planet would become extinct in 9 years. In spite of all the sprays and poisons which could be manufactured to kill off destructive slugs and insects they would so multiply that in that length of time they would have eaten up all the orchards and crops in existence, and man would be starved to death. All that man does in the way of "preserving to our use the kindly fruits of the earth" is as nothing compared with what is accomplished by the vast army of birds which prey on insect life and thus keep it down to a point which permits of the growth of sufficient food to support human life. Take away the birds and in 9 years not a man, woman or child would be alive. All would be dead of starvation.—Exchange.

Last fall while cutting up corn, my hired man saw a large garter snake crawl from under the bundle which he was lifting. Striking it with his corn knife, he cut it in 2 and we were much surprised to find it literally full of shelled corn. There was at least a third of a pint of the grains, all in the "milk" stage. I never heard of the like before. Did any of RECREATION's readers?

A. C. Thatcher, Urbana, O.

Did you ever notice when walking up a pair of mallards that the duck always flies first? I have watched them many times. Sometimes when the duck was a little slow about getting up the drake would seem uneasy, but he always watched until the duck started. Of course he would be a close second, but he waited every time.

S. N. Leek, Jackson, Wyo.

Recent letters in RECREATION remind me that last summer many grouse visited every day a spring on our place. I watched them several times, and saw them drink just as chickens would.

Lester Locke, Arko, Ore.

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Sussex,	Isaac D. Williams,	Branchville.
Union,	A. H. Miller,	Cranford.
	C. M. Hawkins,	Roselle.
Warren,	Jacob Young, Reuben Warner,	Phillipsburg.
Monmouth	Dory-Hunt,	Wanaque.
Hudson,	A. W. Letts,	51 Newark St., Hoboken.

LOCAL WARDENS IN PENNSYLVANIA.

Jefferson,	John Noll,	Sykesville.
Perry,	Samuel Sundy,	Lebo.
Warren.	F. P. Sweet,	Goodwill Hill.
"	Nelson Holmes,	Cornplanter.
Juniata,	Clifford Singer,	Oakland Mills.
"	Ezra Phillips,	McAlesterville.
Venango,	G. D. Benedict,	Pleasantville.
Potter,	Ira Murphy,	Coudersport.
"	Wiley Barrows,	Austin.
"	Chas. Barrows,	Austin.
Crawford,	Jasper Tillotson,	Tillotson.
"	Geo. T. Meyers,	Titusville.
"	J. B. Lamb,	Buel.
Cambria,	W. H. Lambert,	720 Coleman Ave., Johnstown.
Butler,	F. J. Forquer,	Murrinsville.
Allegheny,	S. H. Allen,	Natrona.
Beaver,	N. H. Covert,	Beaver Falls.
"	W. R. Keefer,	"
McKean,	C. A. Duke,	Duke Center.
"	L. P. Fessenden,	Granere.
"	Wm. Holsinger,	Stickney.
Lack,	Wm. Weir,	Moosic.
Carbon,	Asa D. Hontz,	East Mauch Chunk.
Cumberland,	J. C. Gill,	Mechanicsburg.
Wyoming,	Cyrus Walter,	Tunkhannock.
Tioga,	E. B. Beaumont, Jr.,	Lawrenceville.
"	G. H. Simmons,	Westfield.
Lycoming,	Jas. J. Brennan,	Oval.
"	B. D. Kurtz,	Cammal.
Delaware,	Walter Lusson,	Ardmore.
Montgomery,	L. C. Parsons,	Academy.
Bradford,	Geo. B. Loop,	Sayre.
Clarion,	Isaac Keener,	New Bethlehem.
Cameron,	Harry Hemphill,	Emporium.
Clinton,	M. C. Kepler,	Renovo.
"	Geo. L. Kepler,	Renovo.
Northumberland,	G. W. Roher,	505 Anthracite St., Shamokin.
Elk,	D. R. Lobaugh,	Ridgway.

LOCAL WARDENS IN MICHIGAN.

County	Name of Warden.	Address.
Ottawa,	W. H. Dunham,	Drenthe.
Kalamazoo,	C. E. Miller,	Augusta.
Berrien,	W. A. Palmer,	Buchanan.
Cass,	Thomas Dewey,	Dowagiac.
Hillsdale,	C. A. Stone,	Hillsdale.
Lake,	John Trieber,	Peacock.

LOCAL WARDENS IN VIRGINIA.

Mecklenburg,	J. H. Ogburn,	South Hil.
King William,	N. H Montague,	Palls.
Smythe,	J. M. Hughes,	Chatham Hill.
King & Queen,	R. D. Bates,	Newtown.
Louisa,	J. P. Harris,	Applegrove.
Henrico,	W. J. Lynham,	412 W. Marshall. Richmond.
East Rockingham,	E. J. Carickhoff,	Harrisonburg.

LOCAL WARDENS IN WYOMING.

Fremont,	Nelson Yarnall,	Dubois.
Uinta,	S. N. Leek, F. L. Peterson,	Jackson.
Carbon,	Kirk Dyer,	Medicine Bow.
Laramie,	Martin Breither,	Cheyenne.

LOCAL WARDENS IN TENNESSEE.

Sumner,	W. G. Harris,	Gallatin.
Stewart,	John H. Lory,	Bear Spring.
Robertson,	C. C. Bell,	Springfield.
Montgomery,	P. W. Humphrey,	Clarksville.

LOCAL WARDENS IN NEBRASKA.

Hall,	E. C. Statler.	Grand Island

LOCAL WARDENS IN NEW HAMPSHIRE.

Cheshire,	S. C. Ellis.	Keene.
Sullivan,	G. A. Blake,	Lempster.
"	J. W. Davidson,	Charlestown.

LOCAL WARDENS IN VERMONT.

Rutland,	Wm. J. Liddle,	Box 281, Fair Haven
Windsor,	F. A. Tarbell,	West Bridgewater.
Orleans,	E. G. Moulton,	Derby Line.
Essex,	H. S. Lund,	Granby.

LOCAL WARDENS IN ILLINOIS.

Rock Island,	D. M. Slottard.	12th Ave and 17th St., Moline.
Iroquois,	J. L. Peacock,	She don.

LOCAL WARDENS IN OKLAHOMA.

Kiowa and Comanche Nation,	A. C. Cooper,	Ft. Sill.

LOCAL WARDENS IN IOWA.

Clinton,	D. L. Pascol,	Grand Mound.
Pottawattamie,	Dr. C. Engel.	Crescent.

LOCAL WARDENS IN WASHINGTON.

Okanogan,	James West,	Methow.
Stevens Co.,	Jacob Martin,	Newport.

LOCAL WARDENS IN UTAH.

Washington,	S. C. Goddard,	New Harmony.

LOCAL CHAPTERS.

Albert Lea, Minn.,	H. A. Morgan,	Rear Warden.
Angelica, N. Y.,	C. A. Lathrop,	"
Augusta, Mont.,	H. Sherman,	"
Austin, Minn.,	G. F. Baird.	"
Austin, Pa.,	W. S. Warner,	"
Boston, Mass.,	Capt. W. I. Stone,	"
Buffalo, N. Y.,	H. C. Gardiner,	"
Cammal, Pa.,	B. A. Ovenshire,	"
Champaign, Ohio,	Hy. F. MacCracken Urbana.	"
Charlestown, N. H.,	W. M. Buswell,	"
Cheyenne, Wyo.,	J. Hennessy,	"
Choteau, Mont.,	G. A. Gorham,	"
Cincinnati, Ohio,	B. W. Morris,	"
Coudersport, Pa.,	I. L. Murphy,	"
Cresco, Iowa,	J. L. Platt,	"
Davis, W. Va.,	J. Heltzen,	"
Dowagiac, Mich.,	W. F. Hoyt,	"
East Mauch Chunk,	Pa., E. F. Pry,	"
Evansville, Ind.,	F. M. Gilbert,	"
Fontanet, Ind.,	W. H. Perry.	"
Ft. Wayne, Ind.,	W. L. Waltemarth	"
Great Falls, Mont.,	J. M Gaunt,	"
Heron Lake, Minn.,	K. C. Buckeye,	"
Hollidaysb'g, Pa.,	H. D. Hewit,	"
Hopkinsville, Ky.,	Hunter Wood,	"
Indianapolis, Ind.,	Joseph E. Bell,	"
Jerome, Ariz.,	Dr. L. A. Hawkins,	"
Johnsonburg, Pa.,	W. J. Stebbins,	"
Kalispell, Mont.,	John Eakright,	"
Keene, N. H.,	F. P. Beedle,	"
Kingfisher, Okla.,	A. C. Ambrose,	Rear Warden
Lake Co., Ind.,	Dr. R. C. Mackey,	"
Logansport, Ind.,	E. B. McConnell,	"
Ludington, Mich.,	G. R. Cartier,	"
Mechanicsburg, Pa.,	Dr. J. H. Swartz,	"
Minturn, Colo.,	A. B. Walter,	"
New Albany, Ind.,	Dr. J. F. Weathers,	"
New Bethlehem, Pa.,	Isaac Keener,	"
Penn Yan, N. Y.,	Dr. H. R. Phillips,	"
Princeton, Ind.,	H. A. Yeager,	"
Reynoldsville, Pa.,	C. F. Hoffman,	"
Ridgway, Pa.,	T. J. Maxwell,	"
Rochester, N. Y.,	C. H McChesney	"
St Paul, Minn.,	O. T. Denny,	"
St. Thomas, Ont.,	L. J. Hall,	"
Schenectady, N. Y.,	J. W. Furnside,	"
Seattle, Wash.,	M. Kelly,	"
Syracuse, N. Y.,	C. C. Truesdell,	"
Terre Haute, Ind,	C. F. Thiede,	"
The Dalles, Ore.,	C. B. Cushing,	"
Walden, N. Y.,	J. W. Reid,	"
Wichita, Kas.,	Gerald Volk,	"
Winona, Minn.,	C. M. Morse,	"

DISCOUNTS TO LEAGUE MEMBERS.

The following firms have agreed to give members of the L. A. S. a discount of 2 per cent. to 10 per cent. on all goods bought of them. In ordering please give L. A. S. number:

Syracuse Arms Co., Syracuse, N. Y. Guns.
Davenport Fire Arms Co., Norwich, Conn. Shot guns, rifles
Gundlach Optical Co., Rochester, N. Y. Photographic goods.
Blair Camera Co., Rochester, N. Y. Photographic goods.
The Bostwick Gun and Sporting Goods Co., 1528 Arapahoe St., Denver, Col.
James Acheson, Talbot St., St. Thomas, Ontario, Sporting goods.
Jespersen & Hines, 10 Park Place, New York City

LIFE MEMBERS OF THE LEAGUE.

W. D. Ellis, 136 W. 72d street, New York City.
A. F. Rice, 155 Pennington avenue, Passaic, N. J.
Dr. W. A. Valentine, 5 W. 35th street, New York City.
A. A. Anderson, 6 E. 38th street, New York City.
A. V. Fraser, 478 Greenwich street, New York City.
E. S. Towne, care National Bank Book Co., Holyoke, Mass.
F. G. Miller, 108 Clinton street, Defiance, Ohio.
Gen. J. F. Pierson, 20 W. 52d street, New York City.
E. T. Seton, 80 W. 40th street, New York City.
J. H. Seymour, 35 Wall street, New York City.
A. G. Nesbitt, Maple street, Kingston, Pa.
D. C. Beard, 204 Amity street, Flushing, L. I.
C. H. Ferry, 1720 Old Colony Bldg., Chicago, Ill.
Hon. Levi P. Morton, 681 5th avenue, New York City.
H. Williams, P. O. Box 156, Butte, Mont.
D. B. Fearing, Newport, R. I.
E. H. Dickinson, Moosehead Lake, Me.
Lorenzo Blackstone, Norwich, Conn.
A. L. Prescott, 90 W. Broadway, New York City.
G. S. Edgell, 192 Broadway, New York City.
W. B. Mershon, Saginaw, Mich.
Hon. H. W. Carey, East Lake, Mich.
George Carnegie, Fernandina, Fla.
Andrew Carnegie, 2nd, Fernandina, Fla.
Morris Carnegie, Fernandina, Fla.
W. L. Underwood, 52 Fulton street, Boston, Mass.
C. E. Butler, Jerome, Ariz.
Mansfield Ferry, 183 Lincoln Park, Boulevard, Chicago, Ill.
Austin Corbin, 192 Broadway, New York City.
J. Stanford Brown, 241 South 5th street, Reading, Pa.
W. H. Smith, Bryn Mawr, Pa.
E. B. Smith, Bourse Bldg., Philadelphia, Pa.

There are thousands of men in the United States who should be life members. Why don't they join? Will someone please take a club and wake them up?

GAME AND THE L. A. S. IN THE SOUTH.

Greenville, S. C.

Editor RECREATION:

I have just finished reading the fourth annual report of the President of the L. A. S., in April RECREATION, and must admit that all he said of the Southern people is true.

I saw 2 men of this city, who call themselves gentlemen, come in from a few hours' shooting with 2 quails, 6 robins and 8 or 10 small sapsuckers. Some of the latter were not larger than canaries.

The Western Carolina Game Protective Association, a local organization, is doing all it can to enforce the laws. Our game laws are rigid enough, but as we have no one whose duty it is to prosecute cases, they are constantly violated. We have a law forbidding exportation of quails and other game birds from the State and the selling of quails killed in this State; but as it permits the sale of quails brought from other States, our pot hunters shoot and net our birds and smuggle them in to the restaurant keepers, who claim to have received the game from Georgia or North Carolina. The burden of proof not being on them to show where they got it, they go free, to continue to buy and sell birds as before.

This morning, as President of the W. C. G. P. A., I directed Mr. Chas. Schwing, Secretary of the Association, to swear out a warrant for the arrest of William Sewing, a *restauranter* for offering quails for sale after the 31st day of March. Sewing came at once to beg off, saying he had the birds left over from those bought during the open season. I asked him if he was not ashamed to ask for mercy after having violated the laws the whole winter, and told him he could not expect leniency. He will be arrested this afternoon and we will see that he is punished to the full extent of the law.

In no other State are game wardens more needed than here. Thousands of birds winter with us and need protection; but as our Legislature is composed chiefly of political cowards, it is afraid to pass laws taxing worthless dogs out of existence and creating the office of game warden. What are we to do? This would be one of the greatest sheep and goat raising States, were it not for the dogs, as the mountains are practically worthless except for pasturage. The grass is knee high all over them and not a sheep or goat to be seen. Numbers have tried sheep raising, but dogs got all the lambs.

I would like to join the L. A. S. if it would benefit this State in any way, but as it has no members here I see but little use for me to join. If you, or the L. A. S., can advise us or help us in any way, we shall be glad to do what we can.

A friend just returned from Georgetown, on the coast, reports that on the last day of March a party of men from New York arrived there to shoot ducks. One man admitted that he had brought 3,000 10-gauge shot shells with him and had got 1,500 from a friend. There were 6 in the party; if each had an equal number of shells, the ducks must have suffered. Those men were not market hunters either; they own a steamboat and electric launches and are fencing several thousand acres for a game preserve.

G. F. Dill.

ANSWER.

As a matter of fact it would not do any practical good for you alone to join the League, but would it not be possible for you to induce a considerable number of your friends to join? Our constitution provides that when we have 25 members in a State we shall organize them into a division. While we have done an immense amount of work on the people in your State, trying to get them into the League, strange to say we have only 3 members in South Carolina. I believe if you should join and then begin a systematic canvass of the sportsmen of the State you might soon enroll the necessary number and enable us to organize a division there. After you once get such a branch organized and get to work with the newspapers and through the mails and by personal solicitation, you can in a few months enroll several hundred men. Then when your Legislature meets again you can bring pressure enough to bear on it to procure the enactment of suitable game laws. Meantime I would render you all possible assistance from this office.

I fully realize the necessity of earnest work in your State as well as in the other Southern States. If you decide to take up this work you can make a great many friends among the educated and cultivated people and especially among the progressive women by including in your crusade the song and insectivorous birds. Millions of these that nest in the North, winter in the South, and I am working day and night to induce all the Southern States to enact laws to protect them from the slaughter they are now subjected to during the winter months. —EDITOR.

HOT TIMES AHEAD FOR LAWBREAKERS.

Urbana, Ohio.

Editor RECREATION:

The Champaign county, Ohio, local chapter of the L. A. S., was organized June 6. Henry F. MacCracken, attorney, was elected rear warden, and Chas. H. Oonk secretary-treasurer, both of Urbana. The meeting was enthusiastic and was marked

by evident realization of the fact that the individual members must be awake and active in the work in order to secure the desired results. The cause of game, bird and fish protection was never so strong in this county as it is today. The people generally seem impressed with the belief that this League means business. Already prominent citizens, not yet identified with the organization, are sending for information as to how best to co-operate with us in the work of saving the birds and game. Some of these inquiries are from sources least expected. Already the boys of the towns are careful to distinguish the harmless birds from the English sparrows and other harmful species. The good people are seconding the work of this League by a word in its favor as opportunity offers, and public sentiment is steadily growing in favor of the rigid enforcement of the game and bird laws. We are fighting a winning battle, and victory is not far off.

The officers elected are ideal men for their positions. They are thorough sportsmen, prominent citizens, energetic workers, and determined officers. I wish you could have heard Mac Cracken serve notice relative to his policy as rear warden of our chapter. Lawbreakers will receive scant courtesy from him. He stipulated only that the individual members apprise him of violations. He is the right man in the right place and the same may be truthfully said of Mr. Oonk. Local chapter of the L. A. S. starts off in excellent shape.

The following resolution was enthusiastically and unanimously adopted:

Whereas, The bird, game and fish laws of Ohio have been constantly and persistently violated in Champaign county, and

Whereas, One of the chief reasons for such violation has been the lack of active public sentiment favoring the severe punishment of such offenders, and the consequent ease with which they have evaded the just penalty of their offences, therefore be it

Resolved, By the Champaign county local chapter of the L. A. S. here assembled, that we do favor the vigorous prosecution and severe punishment of all persistent violators of bird, game or fish laws, and that we do hereby respectfully request all magistrates having jurisdiction in Champaign county and before whom an offender may be tried and found guilty, to impose the severest penalty fixed by law for such offence.

And be it further

Resolved, That bird, game and fish laws to afford adequate protection to our birds, game and fishes, should be enforced without fear or favor, and that to such impartial enforcement of the law, this chapter of the L. A. S. pledges its hearty endorsement and active co-operation.

Be it further

Resolved, That a copy of these resolutions be furnished each magistrate in this county. A. C. Thatcher.

This chapter starts off with 120 members, the largest numher ever enrolled in any chapter of this League in so short a time. To Mr. Thatcher, vice warden of the Ohio division, is due the credit for nearly all the preliminary work in bringing these 120 men into line. Here is another great object lesson for the friends of game protection. You see what can be done when a determined and energetic man goes to work. There are such sportsmen everywhere. Will not more of them follow Mr. Thatcher's splendid example?—EDITOR.

LEAGUE NOTES.

The Hon. Wm. Sulzer, a member of Congress from New York and a member of the L. A. S., has been doing some good work in Congress during the past 2 years, in the interests of game and fish protection. He has rendered valuable support to the various bills which have been introduced there on these lines, and has expressed a willingness to assist in this work in every way possible. He introduced a bill for the protection of salmon in Alaska, but unfortunately it was defeated because certain other members objected to some of its features. The salmon are being slaughtered at a terrific rate in Alaska, and unless a restriction law is enacted in the near future, they will disappear from that great country, as they have disappeared from California, Oregon and Washington. Mr. Sulzer will doubtless re-introduce his bill in the next session of Congress, and I trust he may then be successful.

I have experienced no special difficulty in conducting League work here, as the people of this section take kindly to the game laws as a rule. I have had no trouble with the Indians. Your correspondence with the Indian agents last winter helped the cause a great deal. Game is increasing. We have a large bunch of antelope in our pasture and as they have not been molested for a long while they are doing well. Deer are becoming accustomed to us, their ancient enemy, and I have reports that a number of them have been seen close to the ranches and villages.

W. P. Saunders, Magdalena, N. Mex.

RECREATION is all right. Every sportsman should take it and read it.

Robt. Hunter, Neepawa, Can.

FORESTRY.

EDITED BY DR B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes thirty years to grow a tree and thirty minutes to cut it down and destroy it.

CHANGE OF ATTITUDE.

The signs of the times with regard to forestry matters are rapidly changing for the better. No more healthful sign could be pointed out, than the reference to the subject in the meetings of the Lumbermen's Associations.

The National Wholesale Lumber Dealers' Association held their annual convention in Chicago, March 5, at which the subject received more elaborate attention than ever before. The secretary, in his report, made the following commendable recommendation:

"I recommend adding to our already important list a committee on forestry. This question of forestry is occupying the attention of the most prominent men of the country, and while there is an association organized for the promulgation of the ideas, we find that but few lumbermen are interested in this question. It should interest every man engaged in the lumber business. Therefore, I recommend that our by-laws be amended so that a committee of 5 shall be appointed year by year in the regular way."

This was followed by a more lengthy argument on the part of the legal counsel of the Association, from which we cull the following extracts to show the attitude of the legal mind toward a matter, "which seems to me to vitally affect the lumber trade, but which has so far received little attention from lumbermen." I refer to the matter of forestry, a subject which is of little import to the ordinary man of affairs, and which hitherto has had little attention from the practical business world, but has served as the hobby of a few scientific men and an occasional lover of nature in its wilder aspects.

"The progress so far has been along theoretical rather than practical lines, and has been the subject largely of academic thought and effort. It is true that in several instances, where the modern fancy of wealthy men has induced them to acquire large tracts of wild lands, experiments in forestry have been attempted; but the principles of forestry have yet to have their first application in the realm of practical business life.

"If one gets into the frame of mind where the lumbering business of a country can be viewed as though from a distant standpoint, so that the mind's eye can take in the scope of an entire country's operations and can extend its observation over both past, present and future, it becomes clear how important a part in the profitable conduct of the lumber business the application of approved forestry principles might play. He sees a legitimate reason for such change in the conditions under which the business is done as will make possible the application of a proper system of forestry, and will result in such system when applied, adding to the economy with which the industry is carried on."

He then points out what I have again and again put forward, that combinations of large capital, trusts, are best suited to practical forestry.

"The proposition is that on the lumber people themselves depends the preservation of their own business; that in all probability they will alone determine whether they will continue to carry on their operations for all time to come or so misdirect their efforts as to number the years of their business.

"It is evident that no single lumberman can accomplish anything along the lines suggested. It is also clear that in the absence of Governmental interference no man or body of men, outside of the lumber dealers themselves, can or will make any progress toward the establishment of better conditions in the treatment of our forests. It follows inevitably that the lumbermen as a body, through themselves, or some other association or organization, must seriously take up the question and find proper means for its solution.

"It seems inevitable that some closer organization of the entire industry will take place in the not distant future and that such organization will have as one of its reasons for existence the enforcement, either with or without Government co-operation, of a forestry system. Such a condition, however, may be in the near or in the distant future or may never come about. That matter need not and should not interfere with immediate steps to enlarge the influence of this Association, with a view to making some practical study and enforcement of a system of forest culture.

"I suggest an immediate effort to extend the membership of this Association over the entire United States, with the avowed object of making such enlarged membership a means for handling in some

practical way this subject of forestry. To this end there should be a proper presentation of the matter to the lumber trade, embodying:

"A statement of the position and influence of the Association.

"A declaration of its intention to take up in a practical way the question of forestry, with a view first to the education of its members; and secondly, to the establishment of some uniform system which shall govern the lumbering industry.

"Reasons for belief in the success of such effort, provided it receives the support of a fair proportion of those engaged in the business.

"A direct appeal for membership based on the proposed new line of work.

"With such action on the part of the Association we could have 1,000 members instead of 300. The establishment of a bureau of forestry would naturally follow and would prove second in importance to no branch of work which has been taken up.

"The appointment of a special committee to take up the subject and submit a definite plan of action would be proper as the first step to be taken by the Association."

To all of which I say "Amen."

THE LIVE OAK.

One of the most interesting and picturesque members of the vegetable world is the live oak. Oaks have, more than other trees, from time immemorial, commanded admiration, and even reverence, because of their stateliness and sturdiness. They have always stood as the somber symbol of stability and strength. Whether the word "live" in the name "live oak" refers to the evergreen foliage, the long life of the tree or the durability of its wood is a question, although it is fully applicable from every standpoint.

"The monarch oak, the patriarch of trees,
Shoots rising up and spreads by slow degrees;
Three centuries he grows, and three he stays
Supreme in state, and in three more decays."

Nine centuries are thus alloted by the poet Dryden to the growth of the European oak. The same is even more applicable to the broad spreading live oak giants of our South.

Especially venerable and somber does this tree appear when festooned, as is usually the case, with great masses of Spanish moss. This so-called moss is an air plant, which does the tree little if any injury. It is not a moss at all, but a flowering plant, closely related to the hard, rasping pineapple which it appears so little to resemble.

The wood of this oak is famous for its durability, and before the replacement of wood by steel it was extensively used in ship construction. The live oak was to this country what the teak was to India. It was one time a "royal tree," a tree reserved for governmental purposes, especially for naval construction.

It was the endeavor to preserve this tree that marked the beginning of our reservation policy. As early as 1799 the federal government recognized the need of action for the preservation of live oak timber. On the 25th of February, 1799, $200,000 was appropriated for the purchase and preservation of live oak and cedar timber in the South for naval purposes. Beyond small purchases in Georgia, nothing was done until 1817, when the act was renewed and the President empowered to select and reserve public lands bearing a growth of live oak or cedar suitable for the navy. This act resulted in a reservation of 19,000 acres on Commissioners, Cypress, and Six islands in Louisiana. This was followed by an appropriation of $10,000 in 1828, with which more lands were purchased on Santa Rosa sound. For some time there were even attempts at cultivation, which were made under the more general act of March 3, 1827, by which the President was authorized to institute proper measures for the preservation of live oak timber. March 2, 1831, an act was passed providing for the punishment of persons who persisted in cutting live oak timber and cedar on public lands. In all, 244,000 acres of forest were reserved in Alabama, Florida, Louisiana and Mississippi.

Endeavors to protect the live oak mark the beginning of the efforts to protect our public lands, and especially forests, from depredation.

The distribution of the live oak is of interest. It begins in Virginia, and, unlike most of our trees, extends Southward across the frost line to the Southern part of Florida, and then on into the tropics.

Nothing is more suggestively beautiful than an old Southern mansion surrounded by these magnificent trees, draped with masses of gray moss.

No tree is more worthy of preservation, and, in certain places at least, it should still be classed a "royal tree," and placed under the ban as of old.

Lawyer—When I was a boy my highest ambition was to be a pirate.

Client—You're in luck. It isn't every man who can realize the dreams of his youth.—Life.

PURE AND IMPURE FOODS.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH.D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

THE RESPIRATION CALORIMETER.

An instrument which has proved of great value for studying the fundamental laws of nutrition, as well as more practical problems, is the respiration calorimeter, so called because it is used to study the products of respiration, and to measure energy in the form of heat. In experiments with the instrument, all the income of the body (food, drink, and inspired air) and all the outgo are measured, as well as the fuel value of the food (the income of energy) and the outgo of energy (the muscular work performed and the heat given off by the body).

The respiration calorimeter was devised by Professors W. O. Atwater and E. B. Rosa, under the auspices of the United States Department of Agriculture and Wesleyan University. It consists of a copper box surrounded by one zinc and 3 wood walls, separated by air spaces. The calorimeter stands in a large room which also contains the pump for forcing a current of air through it, and many other instruments and appliances for making necessary measurements. The copper box is really a small room about 7 feet long, 4 feet wide and 6½ feet high. It is furnished with a folding bed, folding table, chair, etc., so that a man may remain in it in comparative comfort several days or even weeks. There is a window in front through which the man experimented on enters the chamber. This closes air-tight. Sufficient light for reading, etc., is admitted through this window. A telephone enables the man in the chamber to communicate with those outside. All the air which is required enters the chamber through a pipe in the front of the apparatus and leaves it through another pipe. The current is maintained by a pump which is an ingenious device. It not only draws the necessary quantity of air through the chamber, but it measures the quantity automatically and delivers a sample for analysis. The air current can be regulated at will, and is always large enough to secure comfort and prevent overheating the chamber and the accumulation of moisture. All the food and drink required are passed through a tube in the side wall of the apparatus. This has a cap on each end. One cap is removed, the food or other article is placed in the tube, and the cap is again screwed on. The man in the chamber then unscrews the cap on the inside and removes the food. The 2 caps are never removed at the same time, and thus no appreciable quantity of air can enter the chamber in this way. The excreta are collected in suitable vessels and passed out through the same tube. All the food and excreta are weighed and samples are analyzed. The incoming and outgoing air is also measured and analyzed. The outgoing air differs from that entering the chamber, since it contains the carbon dioxide and water vapor given off from the lungs. These result from the burning up or oxidation of food in the body just as they result from the consumption of fuel in a furnace. The body is often likened to an engine and food to fuel. The body differs from an engine in that it is in itself built up from the elements contained in its fuel, and any excess over the amount required for building and repairing tissue and for the work performed may be stored as reserve material, chiefly fat.

The respiration calorimeter is so arranged that no heat can pass through the walls from the outside or vice versa. All the heat given off from the man's body inside the chamber serves to warm a current of cold water which circulates in a pipe passing around the inside of the chamber. This device suggests the system commonly employed of heating houses by means of hot water. The hot water brings heat into the room where it is given off, the partially cold water returning to the boiler.

In the respiration calorimeter the cold water enters the chamber, is warmed, and, flowing out, carries the heat with it. By measuring the volume of water which passes through the pipe and its temperature on entering and leaving the chamber, the amount of heat can be easily calculated. The latent heat contained in the food and represented by its fuel value is liberated when food is burned in the body. This heat serves for maintaining the body temperature, supplies the energy necessary for the circulation of the blood, the beating of the heart, and for all work performed. The resultant of all forms of work is heat; that is, the energy which is used to perform work is converted into heat. This is

true of the body and of all mechanical devices for performing work. The heat given off from the body shows how much material was burned in it. If mechanical work was performed by the subject, the amount can be measured by suitable devices. In some of the experiments the man worked a stationary bicycle which ran a small dynamo. In this and other ways all the energy given off by the body was measured and the total energy produced was compared with that introduced in the food consumed. With the respiration calorimeter it is possible to compare different foods and their capacity for producing work, also to learn the quantities of food required for certain kinds of work. In other words, this apparatus can be used, among other things, to test the value of foods in the human machine just as other devices are used for testing the value of fuel for producing work in an engine. It is a delicate apparatus, as will be seen by the fact that it measures readily the heat produced by the combustion in the body of the small quantities of food necessary to supply the energy used when a man rises from a chair and sits again as slowly as possible.

The uses of the respiration calorimeter for studying the theories of nutrition are many. It may be and is used for the study of many practical problems. Others are more popular. While some of the features of this apparatus were suggested by earlier forms devised by European investigators, the essential features are original. It is the first device of its kind combining successfully a respiration apparatus and a calorimeter. As an indication of the way it is regarded by other investigators, it may be mentioned that the German government and the Austrian government have each appropriated considerable sums for the construction of similar respiration calorimeters.

CORDIALS.

The cordials which are so frequently served after dinner owe their flavor, if genuine, to fruits, aromatic herbs, and similar articles. Cordial making is an old practice, having been carried on, for instance, at some European monasteries for generations. Cordials of domestic manufacture are favorites in many families in France and Germany, and old recipes are carefully followed. Home-made cordials are not unknown in America; the black currant cordial, sometimes made in New England, being without doubt a direct descendant of an English ancestor. Cordials frequently contain a large percentage of alcohol. They are usually of pronounced color, which they should own, at least theoretically, to the fruits, flowers, etc., used in their manufacture. The home-made cordials seldom, if ever, contain added colors.

The sale of cordials in the United States has grown markedly in recent years. They are liked for their peculiar flavors, but are, without doubt, frequently served on account of their attractive colors. An examination of bright colored cordials was undertaken recently at the Connecticut State Experiment Station at New Haven. According to the investigators, this was done, not because such goods are seriously adulterated, but because the cordials illustrate most strikingly the extreme to which the present mania for colored food may be carried.

Twenty-nine brands were found on sale in the State and analyzed. The investigation revealed the following facts: *Creme de menthe* is a cordial usually containing 13 to 30 per cent of alcohol, 10 to 40 per cent of sugar, a certain quantity of oil of peppermint and possibly other flavoring matter, and having a vivid green color. Uncolored *creme de menthe* has little sale, and it is doubtless true that the popularity of the green product is due quite as much to its color as to its flavor. *Creme de violette* and *creme de rose* had about the same quantity of alcohol and sugar as the *creme de menthe*. The former was flavored with a violet-like extract (probably orris) and apparently colored with methyl violet or other coal-tar product. The latter was flavored with rose and colored with various red dyes. Other cordials, such as *creme de cacao* and *creme de celeri*, belong to the same class with those already described.

All but 2 of the mint cordials analyzed were colored with coal-tar dyes, usually malachite green or a closely allied color mixed with a yellow dye. The 2 brands which were free from coal-tar dyes contained what appeared to be vegetable colors, probably chlorophyl or leaf-green. This leaf-green is harmless.

Five samples of *creme de violette* were examined. With one exception they were colored with methyl violet, a dye commonly used in violet ink. Of the samples of *creme de rose* and rose cordials, 2 contained a Bordeaux red or a related dye, one fuchsine (magenta), one a *ponceau*, and one cochineal. In 2 of the miscellaneous cordials, a coal-tar orange color (tropeolin) was detected. The *creme de cacao, creme de celeri, creme de cafe* and *ratafia de cerese* examined contained no added coal-tar color.

The solid matter in all the samples of *creme de menthe* and most of the other cordials consisted largely, if not entirely, of cane sugar, but in 2 of *creme de violette* and one of *creme de rose* it was in part glucose.

BOOK NOTICES.

A NEW POPULAR FISH BOOK.

American Food and Game Fishes, by David Jordan, Ph.D., President of Leland Stanford Junior University, and Barton W. Evermann, Ph.D., Ichthyologist of the United States Fish Commission, is a popular account of all the species of fish found in America North of the equator, with keys for ready identification, life histories, and methods of capture. This is a really great book; and in it the art of making beautiful books has reached highwater mark. A more attractive book, or one which will bring pleasure and delight to more classes of people, has never come from the American press. It's purpose, as stated by the authors, is "to furnish that which well informed men and women, and those who desire to become well informed, might wish to know of the food and game fishes which inhabit American waters." The book contains 621 pages of text, 221 text cuts, 10 lithographed plates in colors, and 64 full page photographs, from life, of 107 species of important food and game fishes. The colored plates are from the remarkable paintings from life by the well known artists, Captain Chas. B. Hudson and Mr. A. H. Baldwin. These plates are marvelously beautiful and scientifically accurate, and far surpass all previous efforts in this line. That of the brook trout deserves special mention.

In the text an equally high standard of excellence has been attained. It describes in language simple and easily understood every species of fish used in America as food or which possesses those qualities called game. The families are taken up in systematic order. Diagnoses are given of all the families and genera containing food or game fishes, and the number of species described is about 1,000. There are keys to all the families, genera, and species, so simple and easily understood that anyone who can read can, with specimen in hand, identify any American food or game fish. To render the identification of fishes even more easy, the authors have given a full glossary of all the terms which might by the novice be considered difficult or technical.

The feature which will prove of greatest interest and value to anglers and all others who are interested in nature is the natural history side of the book. Full, accurate and exceedingly entertaining accounts are given of the habits or life histories of the various species, their geographic distribution, the kinds of lakes and streams in which found, their feeding and spawning habits, and the game qualities of each, together with their food and commercial value. Commercial fishermen are given a vast amount of information regarding the food fishes of America, where the different species are found, their abundance, habits, the methods employed in their capture, and their commercial value. This will prove also of much value to teachers and the general reader.

Anglers are told what the game fishes of America are, not only those of the lakes and streams but of the ocean as well, where to find them, and when and how to catch them. The game and food qualities of each are discussed and many fish stories and bits of angling lore are given.

Every member of the League of American Sportsmen will be pleased at the firm stand the authors take in favor of fish protection. Both are members of the League.

Dr. Jordan and Dr. Evermann, the authors of this popular book, are well known as the most voluminous writers and the leading authorities on American fishes. They are both naturalists of world-wide fame and have been associated in ichthyological investigations almost continuously since 1878. During their study of the geographic distribution and habits of fishes they have each traveled more than 200,000 miles. They have each caught fish in Mexico, Canada, British Columbia, Alaska, the Hawaiian islands and in every State and Territory in the Union. Dr. Jordan, in addition, has fished in Cuba, most parts of Europe, and in Japan and Samoa; while Dr. Evermann has "wet a line" in Porto Rico, the Danish West Indies, the Bahamas, and in far away Kamchatka. While collecting fishes for study they have waded more than a thousand miles in a thousand streams and lakes; sometimes when the temperature of the water was above 100 degrees, and many a time when it was down to freezing. Either one or both have caught about every species of food and game fish known to American waters; and they have eaten or tried to eat them all.

This book is published by Doubleday, Page & Co., New York, at $4 net, a price remarkably low when the size and artistic character of the volume are considered.

"The War in South Africa," by Dr. A. Conan Doyle, is a wide departure from Dr. Doyle's previous work. Its title is self-explanatory, and its purpose is best set

forth in Dr. Doyle's own preface, in which he says, "In view of the persistent slanders to which our politicians and our soldiers have been equally exposed, it becomes a duty which we owe to our national honor to lay the facts before the world."

The book is paper bound and is published by McClure, Phillips & Co., New York.

"Trolley Exploring within 30 Miles of New York" is a little book issued by the *Brooklyn Eagle*, and giving connections for 55 separate trolley routes, quoting prices and naming points of special interest along the lines. Every person within 50 miles of New York, Boston or Philadelphia will find this book useful, and suggestive of many enchanting summer trips which may be taken at slight expense. Price 10 cents. Please say you saw it mentioned in RECREATION.

The Unique Publishing Co., 87 Arcade Building, Utica, N. Y., has issued a handy pocket score book for golf players, which will be sent to anyone asking for it, enclosing a 2 cent stamp and mentioning RECREATION.

PUBLISHER'S NOTES.

THIS BOOK TELLS WHERE.

The Passenger Department of the Northern Pacific Railway has issued a book entitled, "Where to Hunt and Fish." No further announcement than this would seem necessary to prompt every sportsman in the United States to send for the pamphlet. I may add, however, that this publication is fully up to the standard of the others that have made Mr. Chas. S. Fee and Mr. O. D. Wheeler famous. Their yearly Wonderland book has long since become a staple article in the household of nearly every reading sportsman in the country, and the present work is equally beautiful and interesting. In addition to the many fine reproductions of photographs shown in this book, there are 4 full page drawings by Ernest T. Seton, made specially for it. These represent the cougar, the grizzly bear, the elk and the mountain sheep. It has too long been the custom of railway passenger men to exploit the hunting and fishing opportunities offered by their respective lines by telling of big scores that have been made in their territory, and by showing pictures of great piles of dead game or strings of dead fish. In the preparation of "Where to Hunt and Fish" Messrs. Fee and Wheeler have properly refrained from offering any such disgusting records or exhibitions. As showing the healthy sentiment which these gentlemen entertain on this subject, I quote from the preface of the book:

"This company makes one request, viz: Scrupulous obedience to all laws enacted for the protection of game and fish on the part of every person; and above all, don't be a game hog.

"A careful reading of the game laws of the various States is asked. These are to be found, in brief, herein, and it should be enough to state that these laws, wherever they are rigorously enforced—and their enforcement is now general throughout the Northwest—have been productive of untold benefit in preserving the game and fish."

I commend this example to all passenger men who may desire the patronage of the best class of sportsmen.

The book in question can be had by sending 6 cents in postage stamps to Charles S. Fee, G. P. A., N. P. R., St. Paul. If you write, please mention RECREATION.

HOW TO RELOAD PAPER SHOT SHELLS.

Shells that have been fired and are to be used again should be decapped as soon as possible and kept in a dry place. If the primers are allowed to corrode in the pockets of the shells they can not be easily expelled and the pockets will be weakened. If shells are allowed to get wet after being fired, the quality of the paper will be impaired. The waterproofing material, which contains a lubricant, is partially expelled by the heat at the time of discharge. Thus moisture operates more quickly, causing the shells to swell and the laps of paper to separate, leaving the shells larger and weaker than when they were first withdrawn from the gun.

Reject all shells that are torn and frayed on the inside, or at the muzzle. Resize all shells and be sure they will enter the chamber of your gun before reloading. Shell resizing dies are made for 10, 12 and 16 guage guns.

If shells are to be used the same length as they originally were they must be rolled or ironed at the muzzle. This operation hardens the soft portion that had been previously crimped. The Ideal Mfg. Co., of New Haven, Conn., has brought out an ironing attachment for its new shell trimmer that will be found of great value in this work. If interested write for circular and, incidentally, mention RECREATION.

A WORK OF ART.

I frequently get a piece of printed matter that appears to have reached the top notch of high art in that line. Then, by and by, some other piece comes along that raises the ante. The latest example of this is a book recently issued by the Gas Engine & Power Company, Morris Heights, New York City. The title page alone is a dream of the impressionist. It represents a bit of mid-ocean by moonlight, the time when the crest of each wave turns into melted gold.

The original was done in oil, and the printing is in tinted ink, on a slate colored paper, that gives a most weird and interesting effect to the picture. Every page of the book shines with the art of the printer and the engraver. The pictures represent every kind of water craft, from a canoe that you can carry under your arm, to a 150 foot steam pleasure yacht. Every lover of art, whether interested in yachting or not, should have a copy of this book. When you write for it, please say you saw it mentioned in RECREATION.

PERFECTION ATTAINED.

While the Page Woven Wire Fence Company has improved the material in Page fences with every advance that has been made in the science of converting iron ore into the best qualities of steel wire, still the identical principles of construction which were incorporated in the first pieces are yet being retained. The crude machinery first used to coil the wire and to wrap and knot the wires together has been improved, strengthened and simplified, and the capacity of every loom has been doubled; yet the principle of construction in the fence is the same as originally applied. The Page Company has studied hard to find if any improvements could be made, but no one has ever yet devised any.

In Page fences the cross wires never allow the horizontal wires to slide up or down. Their method of wrapping and knotting the cross wires and the horizontal wires together is the simplest and most secure method in vogue.

THE BOSS THE BEST.

Ordinary watch works may generally be made effective timekeepers by careful and strong casing. The finest grades of watch works require strong casing to protect their delicate mechanism. The best of all cases for either class is the James Boss Stiffened Gold Watch Case. This is a gold case stiffened in the center with a plate of hard metal to prevent its getting thin and weak and bending down on the works, as a gold case does after a few years' wear. The Jas. Boss case is guaranteed 25 years, and none was ever known to wear out. Jewelers everywhere keep a full stock of these elegant cases. Ask your dealer to see them; or for the book showing why a Jas. Boss Stiffened Gold Case is better than a solid gold case write the Keystone Watch Case Company, Philadelphia.

DON'T LOSE YOUR GLASSES.

Gall & Lempke, opticians, 21 Union Square, have lately put on the market a little attachment for eyeglasses that will prove a great luxury to such sportsmen as are compelled to wear glasses in the woods, or in the fields. The invention consists of delicate wire clips that can be attached to the outer ends of ordinary eyeglasses in a minute and hooked over the ear, thus converting the glasses into spectacles and holding them securely. Every unfortunate who has to wear glasses has had uncomfortable experiences from their dropping off just when he wanted them to stay on, and this new device holds them on like a pack on a cayuse. The clips sell at 50 cents a pair. If you order please say you saw them mentioned in RECREATION.

THE GREAT GAME FIELDS.

Sportsmen everywhere know the finest shooting and fishing on the continent is to be found in the Northwestern United States, particularly along the line of the Great Northern Railway. Mr. F. I. Whitney, General Passenger Agent of the Great Northern Railway, states that he is having a heavy demand for the 1902 edition of "Shooting and Fishing along the line of the Great Northern Railway." This handy publication, in pocket size, has been revised and re-written to date, and is a complete guide to the best Northwestern points for game and fish. Copy will be sent to any address on receipt by Mr. Whitney of 6 cents in stamps.

STOCKING IDAHO WATERS

D. E. Burley, G. P. A., Oregon Short Line Railway, writes me: "During the last few years nearly all our streams have become almost depleted by use of dynamite, traps, etc. This company has been using every effort to replenish the streams which are tributary to our line, and within the past 4 years we have transplanted, approximately. 5,000,000 trout and graylings in the Big Hole, Snake and tributary streams. We expect to continue this work, so that, within a few years, we shall have in Idaho probably the best fishing that can be found in any State of the Union."

FREE TO DYSPEPTICS.

If you suffer from distress, bloating, heartburn, sour stomach or water brash,

you can find relief, and, what is better in most cases, a cure, by using Glycozone. This scientific germicide stops fermentation of food in the stomach, allays inflammation of mucous membrane, and is absolutely harmless. To demonstrate its wonderful efficiency, if you mention RECREATION I will send on receipt of 20 cents, to cover postage, a liberal sample of Glycozone that will prove its merit.

Prof. Charles Marchand, 59 Prince St., N. Y.

Kindly tell your readers I have sold my entire stock of fine Belgian hares to Drs. Phillips & Wrean, of Penn Yan, N. Y. I am confident all applicants will receive courteous treatment from that firm. I advertised in only 2 issues of RECREATION, and that was a year ago, yet since then hardly a week has passed that I have have not received 2 to 4 letters from your readers requesting prices, etc. I had thought that "Out of sight" would be "Out of mind," but it seems readers of RECREATION never let even the advertisements get old. I know of no better advertising medium.

W. L. Blinn, Rockford, Ill.

The new U. M. C. catalogue of shot shells and metallic cartridges, wads, primers, etc., is an attractive pamphlet of 80 pages. The special features are a list of 18 new cartridges, now made for the first time, and special tournament loads for shot guns at the trap. The highest grade U. M. C. primer, No. 3, is now used in all U. M. C. smokeless shot shells. The catalogue contains an index and will be sent free on application. Please mention RECREATION.

Excellent maskalonge fishing is reported from points in Northern Minnesota, on the line of the Great Northern Railway. The only other sport that can compare with this is the salmon fishing of the Eastern United States and Canada. "Shooting and Fishing along the line of the Great Northern Railway," 1902 edition just published, tells all about such points, with names of guides, hotel rates, etc. Send 6c. in stamps to F. I. Whitney, G. P. & T. A., St. Paul, Minn.

The latest "Marble Tricks" for sportsmen are a canoe knife and a yacht knife, each made in 2 models. These knives are similar to Marble's regular Ideal hunting knife, but with thinner and lighter blade, especially adapted to meet the needs of canoeists and yachtsmen. Write Marble Safety Axe Co., Gladstone, Mich., for descriptive circular of these knives and please say you saw their ad in RECREATION.

Persons interested in trapping should write the Oneida Company, Limited, of Kenwood, N. Y., makers of the famous Kenwood traps, for their book on trapping, which is authority on this subject. Please note, however, that this book is not for free distribution, though the Oneida Compay will send their catalogue of traps on application to those mentioning RECREATION.

The Passenger Department of the Grand Trunk Railway has issued a book entitled "Haunts of Fish and Game," which is full of information about the wild country to the North of the St. Lawrence river. Every sportsman in the country, whether or not he may intend to visit that region, should have a copy. Write G. T. Bell, G. P. A., Montreal, Canada. Mention RECREATION.

If you want anything in the way of sportsmen's goods and don't know just where to get it, try R. H. Ingersoll & Bro., New York. They keep about everything you can think of and a lot of things you could not think of if you had 10 guesses. And Ingersoll sells at manufacturers' prices. Yes, and some things below.

Huyler, 863 Broadway, New York, is making almond shaped boxes filled with smaller almonds, which are exact imitations of the real nut. He is making, also, peanut and walnut boxes of the same nature. These are used extensively as dinner favors.

Parker Bros.' advertisement in this issue of RECREATION is mighty interesting reading to any man who uses guns. Fred. Gilbert has made a most important record with a Parker gun during the current year. Be sure to read the advertisement carefully.

W. E. Parker broke 92 per cent of the flying targets shot at in the Williamsport Club shoot, Williamsport, Pa., taking high average. He shot U. M. C. Arrow shells.

J. M. Hughes, of the Lincoln Gun Club, Lincoln, Ill., recently broke 157 flying targets out of 160. This remarkable record was made with U. M. C. shot shells.

Husband: I've been looking over your engagement book, dear.

Wife: Well?

"Can't you postpone that quarrel you are going to have with me to-morrow for another week?"—Life.

EDITOR'S CORNER.

ALL ABOUT SNOW SLIDES.

As stated in a previous issue of RECREATION, I made a trip to the Selkirk mountains, British Columbia, in April last, and camped 3 weeks among the high peaks where snow slides are of daily occurrence at that time of year. I had some rare opportunities of studying these wonderful phenomena.

I saw 3 of the slides come down. I stood within 20 feet of one of them, within 100 yards of another and within 1-4 of a mile of another.

I made an extensive series of photographs of the slides, a number of which, together with an exhaustive report of my observations and experiences, will be published in November RECREATION. I can not say much for the story, because I wrote it myself; but, even though I made the pictures, I can say they are corkers, and every man who has ever seen or heard a snow slide come down will enjoy them. People who have not had such opportunities will also be deeply interested in these pictures.

Furthermore, I have had a lot of stereopticon slides made from my negatives, and shall be glad to show them to clubs or associations who may wish to see them, and to tell what I know about snow, rocks and trees that lose their grip on the mountains and shoot into the bottom of the canyon, at the rate of a mile a minute.

OUTLAW'S DEPREDATIONS STOPPED.

One Peter La Fontaine, a Canadian outlaw, has, for several years, made a practice of crossing the border into Maine, killing game in close season and hurrying back across the border into Canada with the spoils. Maine wardens have been watching for him, but were unable to get a line on him until in March last. Late in that month La Fontaine crossed the line and was promptly apprehended by game wardens Templeton, Houston and Forest. When the wardens read him the warrant he drew a gun and Mr. Templeton promptly put a bullet into La Fontaine's carcass. He is severely though, it is feared, not fatally wounded. He was taken to a doctor in Canada for treatment and nothing has been heard of him on this side since. It is hoped that La Fontaine has at least experienced trouble enough to convince him that the Canadian climate will be more healthful for him hereafter than that of the States.

BILL FOR SOUTHERN FOREST RESERVE.

Senator J. C. Pritchard of North Carolina has introduced a bill in the Senate for the creation of a national forest reserve in the Appalachian mountains within the States of Virginia, North Carolina, South Carolina, Georgia, Alabama, and Tennessee. The park is to include about 2,000,000 acres of land, and the bill appropriates $5,000,000 for the purchase thereof. The bill was referred to the committee on forest reservations for the protection of game, from which it was favorably reported, without amendment, and it is hoped the bill may be enacted at the next session. There is great need of a forest reserve in the district covered by this measure, and the people of the whole country are favorably disposed toward the creation of such a park.

SHOULD NOT USE LIVE BIRDS.

The El Paso Gun club of El Paso, Texas, will give a 3 days' trap shooting tournament in that city during the carnival which is to be held there in January next. Full particulars can be had by addressing W. H. Shelton, Secretary. January in Southwest Texas is like September or October in the Northern States, and it will therefore be a treat to any Northern sportsman to get into that dry, warm country at that time of year.

I trust the club may not use live birds in this tournament. That is not necessary nowadays. Inanimate targets are just as good, and are even harder to hit.

MR. WARD TO BE PROSECUTED.

Herman Kohn, secretary of the San Francisco lodge of Elks, was arrested for having in possession an elk which Chas. Ward, a member of that lodge, killed in Golden Gate park in order that the head might be hung in the lodge room. Mr. Kohn was found guilty and fined $25. Mr. Charles Vogelsang, State fish and game commissioner, has decided to prosecute Mr. Ward, who did the killing, and the man who placed the carcass in cold storage. These men will probably conclude by the time they get through that it would have been cheaper for them to go into the Rocky mountains if they must have a head.

He (who has offended her): "Won't you look up at me?

"If I did, you'd kiss me again."

"No; honest, I won't."

"Then what's the use?"—Life.

"Drink Beer"

When you get run down, your doctor says "drink beer." Or he prescribes a malt tonic — concentrated beer.

Weakness calls for food, and barley-malt is a food half digested. The digestion of other foods is aided by a little alcohol, and beer has 3½ per cent.

Weakness requires a tonic — that's hops.

And it's good for well people, too, if you get a *pure* beer. That's essential.

Even a touch of impurity makes beer unhealthful, because beer is saccharine. Impurities multiply in it.

And a "green beer"— insufficiently aged — causes biliousness. But a pure beer — well aged — is the beverage of health.

Schlitz beer costs twice what common beer costs in the brewing. One-half pays for the product; the other half for its purity.

One-half is spent in cleanliness, in filtering even the air that touches it, in filtering the beer, in sterilizing every bottle. And it pays the cost of aging the beer for months before we deliver it.

If you ask for Schlitz you get purity and age, yet pay no more than beer costs without them.

Ask for the Brewery Bottling.

WHY THE GRIZZLY IS DISCREET.

THE OLD CATTLEMAN, in "Wolfville Days," says:

Courage is frequent the froots of what a gent don't know. Take grizzly b'ars Back 50 years, when them squirrel rifles is preevalent; when a acorn shell holds a charge o' powder, an' bullets runs as light and little as 64 to the pound, why son! you-all could shoot up a grizzly till sundown an' hardly gain his disdain. It's a fluke if you downs one. That sport who can show a set o' grizzly b'ar claws, them times, has fame. They're as good as a bank account, them claws be, an' entitles said party to credit in dance hall, bar room an' store, by merely slammin' 'em on the counter.

At that time the grizzly b'ar has courage. Whyever does he have it, you asks? Because you couldn't stop him; he's out of hoomanity's reach—a sort o' Alexander Selkirk of a b'ar, an' you couldn't win from him. In them epocks, the grizzly b'ar treats a gent contemptous. He swats him or he claws him, or he hugs him, or he crunches him, or he quits him accordin' to his moods, or the number o' them engagements which is pressin' on him at the time. An' the last thing he considers is the feelin's o' that partic'lar party he's dallyin' with. Now, however, all is changed. Thar's rifles burnin' 4 inches o' this yere fulminatin' powder, that can chuck a bullet through a foot of green oak. Wisely directed, they lets sunshine through a grizzly b'ar like he's a pane o' glass. An' son, them b'ars is plumb onto the play.

What's the finish? To-day you can't get clost enough to a grizzly to hand him a ripe peach. Let him glimps or smell a white man, an' he goes scatterin' off across hill an' canyon like a quart of licker among 40 men. They're shore apprehensife of them big bullets an' hard-hittin' guns, them b'ars is; an' they wouldn't listen to you, even if you talks nothin' but bee-tree an' gives a bond to keep the peace besides. Yes, sir; the day when the grizzly b ar will stand without hitchin' has departed the calendar a whole lot. They no longer attempts insolent an' coarse familiar'ties with folks. Instead of regyardin' a rifle as a rotton cornstalk in disguise, they're as gunshy as a female institoote. Big b'ars an' little b'ars, it's all sim'lar; for the old ones tells it to the young, an' the lesson is spread throughout the entire nation of b'ars. An' vere's where you observes, enlightment that a-way means a-weakenin' of grizzly-b'ar courage.

"You say the evening wore on. What did it wear?"

"The close of day, of course."—Punch Bowl.

ORE HUNTING FOR SPORT.

It is great pleasure to read the many hunting and camping stories in RECREATION; you secure the best in that line. I saw an article some time ago about prospecting for minerals while on such trips. Having spent several seasons in that way, I know it doubles the pleasure of the trip. Many of the rich mines of the West were discovered by men who had practically no knowledge of mining. With little study a man can tell minerals from sandstone or granite. As hunting usually takes a man into unsettled and out-of-the-way places, it is easy and many times profitable to pay some attention to nature's treasures, as well as to the trophies of the chase.

A small prospector's pick, weighing one pound, is all the outfit necessary, and I would as soon leave my gun or my Kodak at home, as my pick. At every cropping of rock or ledge, I break a piece and examine it. A small mineral glass, costing only 50 cents, will aid greatly. When I find rock I do not understand, or which shows mineral of any kind, I take a sample to camp and label it carefully. When I take my collection home, my assayer, for a few dollars, tells me what it contains.

It is said the great camp of Creede was discovered from a small piece of rock, broken by a mule's feet in going over an old trail. The rock was old and weather-beaten, and the watchful eyes of prospectors had passed it by many times; but on being broken it showed a glittering mass of silver. The rock assayed $1,000 to the ton when tested. The Government surveyors put up a corner stone on Bull hill, Cripple Creek district, years before the discovery of this camp.

Sam Stevens, Cripple Creek, Colo.

When a boy I owned a gun like the one described by A. Kennedy in April RECREATION. When it came into my possession the barrel was nearly 4 feet long, and was straight grooved, or rifled, its entire length. The man from whom I got it called it a "straight cut" rifle. I did not use it as a rifle, but for throwing shot I never saw its equal. It had rifle sights and was 38 or 40 caliber. With a small charge of shot its range was wonderful, though the pattern was so close that a careful aim was necessary. Squirrels were abundant in those days and I never failed to bring them down from the tallest trees when my aim was right. I never used the weapon as a rifle, so do not know how accurately it would throw a ball.

M. G. Crawford, Boise, Ida.

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AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

7th ANNUAL COMPETITION.

RECREATION has conducted 6 amateur photographic competitions, all of which have been eminently successful. The 7th opened April 1st, 1902, and will close November 30th, 1902.

Following is a list of prizes to be awarded:

First prize: A Long Focus Korona Camera 5 x 7, made by the Gundlach Optical Co., Rochester, N. Y., fitted with a Turner-Reich Anastigmat Lens, and listed at $85.

Second prize: A No. 3 Folding Pocket Kodak, made by the Eastman Kodak Co., Rochester, N. Y., fitted with a Bausch & Lomb Lens Plastigmat Unicum Shutter, and listed at $61.50.

Third prize: An Al-Vista-Panoramic Camera, made by the Multiscope and Film Co., Burlington, Wis., and listed at $40.

Fourth prize: A Wizard C Camera, 4 x 5, made by the Manhattan Optical Co., Cresskill, N. J., with B. & L. Iris Diaphragm and Leather Carrying Case: listed at $33.

Fifth prize: A Waterproof Wall Tent, 12 x 16, made by D. T. Abercrombie & Co., New York, and Listed at $32.

Sixth prize: A Gold Hunting Case Watch; listed at $50.

Seventh prize: A Tourist Hawkeye Camera, 4 x 5, and made by the Blair Camera Co., Rochester, N. Y., and listed at $15.

Eighth prize: A Bristol Steel Fishing Rod, made by the Horton Mfg. Co., Bristol, Conn., and listed at $6.

The 10 next best pictures will each be awarded one dozen 8 x 10 Carbutt Plates, made by the Carbutt Dry Plate Co., Wayne Junction, Philadelphia, Pa.

The 10 next best pictures will each be awarded one dozen 5 x 7 Carbutt Plates.

The 10 next best pictures will each be awarded one dozen 4 x 5 Carbutt Plates.

A special prize: A Goerz Binocular Field Glass, listed at $74.25, will be given for the best picture of a live wild animal.

Subjects are limited to wild animals, birds, fishes, camp scenes, and to figures or groups of persons, or animals, representing in a truthful manner shooting, fishing, amateur photography, bicycling, sailing or other form of outdoor or indoor sport or recreation. Awards to be made by 3 judges, none of whom shall be competitors.

Conditions: Contestants must submit 2 mounted prints, either silver, bromide, platinum or carbon, of each subject, which, as well as the negative, shall become the property of RECREATION. Negatives not to be sent unless called for.

In submitting pictures, please write simply your full name and address on the back of each, and number such prints as you may send, 1, 2, 3, etc. Then in a letter addressed Photographic Editor, RECREATION, say, for instance:

No. 1 is entitled —— ——.
Made with a —— —— camera.
—— —— lens.
On a —— —— plate.
Printed on —— —— paper.
Length of exposure, —— ——.

Then add any further information you may deem of interest to the judges, or to other amateur photographers. Same as to Nos. 2, 3, etc.

This is necessary in order to save postage. In all cases where more than the name and address of the sender and serial number of picture are written on the back of prints I am required to pay letter postage here. I have paid as high as $2.50 on a single package of a dozen pictures, in addition to that prepaid by the sender, on account of too much writing on the prints.

Any number of subjects may be submitted.

Pictures that may have been published elsewhere, or that may have been entered in any other competition, not available. No entry fee charged.

Don't let people who pose for you look at the camera. Occupy them in some other way. Many otherwise fine pictures have failed to win in the former competitions because the makers did not heed this warning.

WITH THE BEGINNER.

Photographing coins, medals and other engraved silver articles offers a good field for amateurs. Much practice and experimenting are needed. The secret of success lies in the lighting. Ordinary daylight will not give the best results. There is nothing to equal a good kerosene lamp, shielded almost all around with a plaster-of-paris shield, after the style of a microscope lamp. This arrangement permits of a soft light being concentrated on the article from the correct angle to best bring out all the delicate detail, with a vigor that can not be obtained in any other way; the taking of a plaster or sulphur cast is often recommended, but it is not the most satisfactory method if the best obtainable results are desired. The use of putty or like matter to give a deadened surface is also objectionable. Properly lighted, as described, the articles themselves, just as they come from the silversmith's hands, will give results that will be a revelation to one who has attempted the work in the ordinary manner.

Imitation enamel pictures may be made as follows: Glass, porcelain, metal, or any other surface that will stand the heat is employed as the final support for a carbon print. The print may be colored, if desired, before the application of the varnish, or japanning. This latter consists of applying

several successive thin coatings of stove varnish. Two kinds are employed; the amber giving the harder film, while the copal variety is the whiter. Each coat must be allowed to dry thoroughly before the application of the next. Moderate heat may be used to facilitate the drying. Polish the surface first with pumice powder, next with oil and tripoli, and finally with putty powder. This should give a hard, brilliant surface. It only remains to subject the article to a temperature of 175-200 degrees for several hours. An ordinary cook stove oven answers every requirement. There is nothing for an amateur with some knowledge of the carbon process to fear in making this beautiful style of pictures.

Sulphite of soda, as a rule, contains a little of the carbonate, and acts in a slight degree as an addition to the alkali of the original formula. Metabisulphite, on the contrary, being an acid salt, neutralizes the alkali to a certain extent. For instance, every 10 grains of metabisulphite in a developer will neutralize 6 grains of potassium carbonate or 13 grains of sodium carbonate crystals, according to which is used as the alkali. Understanding this, due allowance may be made and the required quantity of alkali added. As the best crystallized sulphite of soda contains only about 27 per cent of sulphur dioxide, the active agent for the prevention of oxidation, while the metabisulphite contains over 57 per cent, the latter is more than twice as efficient a preservative, and should be used in a correspondingly less quantity.

An acid fixing bath for developing papers has many points in its favor, and its excellent keeping quality makes it less likely to cause serious trouble. It is difficult to judge when a bath has passed its usefulness, as we do not always remember the number of prints fixed or the weeks or months it has been in use. If it has become exhausted it will no longer fix any prints; and the difficulty is that it is scarcely possible to judge whether a print is fixed by its appearance. With a negative this is not experienced, as we are not deceived by a white and opaque ground. Therefore, by occasionally fixing a negative in the acid fixing bath for prints, and noting the time it takes to fix, you have the necessary assurance that it will do further duty.

For hardening gelatine or bromide prints several other chemicals will serve equally as well as the alum bath, if not better. Chloride of aluminum, tannin, or formaline, are all good for hardening bromide prints. A weak solution only is required. One in 20 is about the right strength for the formaline bath. Too strong a bath will cause blisters.

Some simple scenes make attractive pictures by photographing them almost directly against the light. In doing work of this kind, a hood to protect the surface of the lens from the direct rays of the sun is advisable. Failing this, the slide, held so that it shades the lens without cutting off any of the view, is a good substitute.

To intensify overtimed negatives rinse each negative and immerse a few minutes in the ordinary solio toning bath. Wash again, place in the fixing bath, and treat as usual. They can not be printed on carbon velox. Use special printing paper.—*Western Camera Notes.*

TO WASH NEGATIVES QUICKLY.

I have devised a washing system that I have used nearly a year and I can wash all negatives in 20 minutes by this process. After washing I always test the plates by permanganate of potash and carbonate of soda solution, until the water from them does not color. Then they are sufficiently washed.

This system is for those who have no running water.

Procure a large wooden bucket from a grocer or confectioner. Give this 2 coats of shellac, after closing all cracks with painters' putty. Bore a hole in the side about one-half inch above the bottom, and one-half inch in diameter. Get a tinsmith to make you a tin tube a little less than one-half inch in diameter. Then get about a foot of one-half inch rubber tubing. Fit one end of the tin tube into the hole in the bucket, nail it and putty up all cracks. Then fit the other end of the tin tube into the rubber tubing and twist a little thin wire around it to keep it in place. This bucket forms a reservoir, or tank. Twice filled with water will be enough to wash 10 negatives 20 minutes.

For the washing box get from your grocer a clove or spice box, or any strong, dovetailed wooden box. The one I have is 7 inches long and 7½ inches wide. It was 8 inches deep, but I sawed it off to 5½ inches, inside measurement. This is for 4x5 inch plates. A similar box of larger size will serve for 5x7 inch or larger plates. Then the opening in the bucket should be made larger, to allow a sufficient flow of water. Bore a hole one-half inch in diameter in the shortest end of the box, one-half inch from the bottom, and fit this with a tin tube similar to the one in the tank, save that the rubber tubing should fit into the tin tube instead of the tin tube into the rubber, as in the tank. This tube should not project far into the box, but should be bent over and nailed.

For the holders saw a half inch board long enough to fit tightly the shortest way across the box, and about 3½ or 4 inches high, or the whole height of the box if preferred. Bore 3 or more holes one-quarter inch in diameter in the bottom of this board, as shown in diagram herewith, and put the board into the box. Get 2 strips of one-half inch stuff about 3 inches wide, and the same length as the board. Make as many grooves or cuts in the strips as you wish. The diagram shows 13. Make these 2 strips exactly alike. Nail one on the board as shown on diagram and the other on the opposite side of the box from where the board will be put. Put the board, strip outward, one-half inch from the shortest end of the box, fit tightly, and nail. The other strip nail directly opposite, about 1½ inches from the bottom. Be sure the plates fit into these groves easily, before the final nailing. Bore a hole in the box one-half inch from top on same side where the small strip is nailed, to let the water run out. The diagram shows the whole system. Varnish the box with shellac after puttying all the cracks.

If the water runs too fast, tie a twine around the rubber tube to check the flow. This system is cheap, reliable and does its work quickly. The water flows in below and goes out with hypo at the top, while the plates are on the edge. The space that is left open on top between the board and the strip can be closed by nailing a small strip across so as to force the water through the holes at the bottom of the board.

Edgar R. Thome.

PRACTICAL ADVICE.

Flour paste, beaten thoroughly and well boiled, with a few drops of oil of cloves and a little alcohol added makes a mounting paste which keeps well.

Many amateur photographers will endeavor to secure snow scenes at this season of the year, and it may save them disappointment and loss of material to know beforehand that their principal source of failure would be over exposure. Snow scenes are more difficult to render than any other branch of the art, not excepting portraits. In the latter, under exposure is most common, but over exposure is almost always present in snow pictures. The light that is reflected from the snow is under estimated, and a stop half the size that would be used in ordinary circumstances will be about right. The point of view should be chosen so as to bring some dark object in the foreground, and if the snow lies smooth it should be broken by footprints or mounds before exposing, so as to give some light and shade to what would otherwise be a flat, uninteresting picture.

A short exposure gives brilliancy, which is characteristic of sunshine. A prolonged exposure gives a negative that will convert the brightest day into an effect resembling the shades of evening.

Some developers, such as metol, rodinal, weak pyro, bring out detail early in development, and gain slowly in density. Others, as hydroquinone and strong pyro, gain density rapidly. All, however, give identical results if carried to the same stage, but in general practice it is found advisable to combine a rapid developer for detail and a slow developer for density.

Print or negative washing dishes made of metal soon wear out. A satisfactory investment for this purpose was an empty butter tub from the grocery. A small hole drilled near the bottom carries away the dissolved hypo. Set under a tap, with the water regulated to keep the tub just full, it needs no further attention. Plates can be put in a washing rack and lowered in the bucket.

To find the exact focus of a lens, focus any object, a foot rule for example, so the image on the screen is the exact size of the object itself. Measure from focusing screen to the object and ¼ of that distance is the focus of the lens.

Brown wrapping paper, such as is used in hardware stores, is a good thing on which to mount warm-toned prints. If the print is first mounted on a piece of white paper so as to show a marginal white line, 1-16 inch, the effect is much better.

To develop films in the roll, take 2 bowls or small basins from the kitchen, in one put clean water in the other the developer. Take hold of each end of the film with a wooden clip clothes-pin and pass it through the water in a seesaw motion, then through the developer until development is complete.

Artistic fuzzytypes can be printed from sharp negatives by placing a sheet of glass or celluloid between print and negative, and printing at the bottom of a deep box. —The Camera and Dark Room.

THE CHEMISTRY OF PYRO DEVELOPMENT.

Constantly changing conditions of light and temperature may make it necessary at times to change the proportions of the different chemicals given in developing formulas. The effect of each ingredient on the plate is as follows:

Pyro is the agent that gives strength.

Sulphite of soda preserves the pyro and prevents the negative from staining yellow.

Sal soda gives detail by softening and opening the pores of the film, causing the pyro to penetrate and act more vigorously.

If pyro alone were used, the development would be slow and decomposition of the

pyro and stain of the negative, due to the absence of sulphite, would prevent full development of the detail.

The addition of sulphite of soda alone would simply enable the development to be continued to a greater extent without stain, but would give a contrasty negative, wanting in detail.

Pyro, sulphite of soda and sal soda, in the proper proportions, the negative correctly timed, and the temperature of room 70 degrees to 75 degrees F. should give a good negative in 4 minutes' development. If in that time your negative is too strong and wanting in detail it is proof that, under your condition of light, you have used too much pyro. Try 25 per cent less. If, however, the high lights are not too strong and the detail is wanting the exposure was too short. This, also, might be overcome by a timely addition of sal soda at the early part of the development. Again, if at the end of 4 minutes your negative appears all over nearly alike, weak and having too much detail, then it is over timed. If the film appears soft, too much sal soda has been used.

If the development has continued 6, 8 or 10 minutes and the result is a flat, weak negative, either your developer is too weak in all its ingredients or the chemicals are impure, or, perhaps, the room is too cold.

Too much pyro gives contrast with proper time of development.

Too little pyro gives a weak negative, with longer development.

Too much sal soda clogs up the negative, with quick development.

Too little sal soda causes contrast and slow development. Too much can also cause flatness.—*Professional and Amateur Photographer.*

SNAP SHOTS.

To print on plain paper, prepare the paper with:

Ammonium chloride	60 to 80 grains.
Sodium citrate	100 grains.
Sodium chloride	20 to 30 grains.
Gelatine	10 grains.
Distilled water	10 ounces.

or,

Ammonium chloride	100 grains.
Gelatine	10 grains.
Water	10 ounces.

Swell the gelatine in cold water, dissolve in hot water, and add the remaining components of the formula. Filter the solution and when still warm float the paper on it for 3 minutes. Sensitize the salted paper on a neutral 45-grain silver bath.

—*The News Monger.*

I always had more or less trouble in changing plates in the holders on a camping trip. I have covered them with bedding and trusted to the feeling to get the right side; then on developing when I got home I have found some of them had been exposed on the wrong side and were covered with dirt. The surest way is to carry a red light; then at night darken the tent by spreading bedding or canvas over it to exclude light from the camp fire.

Did any reader of RECREATION ever try a small tent made of one or 2 thicknesses of red cloth? I think I shall try it this season. S. N. Leek, Jackson, Wyo.

In a recent issue of RECREATION you give a formula for sensitizing paper or cloth; 10 grains ammonia chloride, 20 grains gelatine, 10 ounces water and sensitizing solution of silver nitrate. I took this to the druggist here and he said he did not know what kind of gelatine was meant, as there are 3 kinds; gold, silver and pink gelatine. Will you please tell me which kind to use?

Ralph K. Mussey, Warner, N. H.

ANSWER.

Any good gelatine will answer.—EDITOR.

To remove nitric acid stains from hands or garments, touch the stains with solution of permanganate of potassium; wash; rinse in dilute hydrochloric acid and wash again.

I was standing by a newsstand on the busiest corner of one of our principal streets. Out of the passing throng a strapping fellow, plainly a toiler in the big city, elbowed his way to within speaking distance of the boy in charge. "Hand me one o' them RE-CREATIONS," said he, as he passed over his little dime. I ventured to remark that he was buying about the biggest 10 cents worth on the stand. He turned on me with the fraternal smile known to all sportsmen, as he replied, "I belong 'way up in New Brunswick, and each month I can hardly wait to get my claws on that little book. It carries me back home, I tell you, back in the moose-country. I'd jest like to see that man Shields, and tell him how much he's done for me." He grabbed his precious RECREATION, plunged into the crowd and left me musing on "that man Shields," and the far-reaching quality of his great work.

Pemigewasset, Worcester, Mass.

"Do you think perfection is ever actually attained in this life?" asked the serious youth.

"Yes," answered Miss Cayenne; "some people become perfect bores."—Washington Star.

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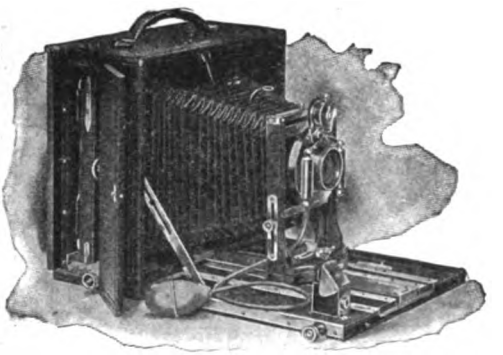

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We do not know how it is possible to offer a stronger guarantee—if we did we would not hesitate to do so.

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Mention RECREATION.

MAKING GOLD CHLORIDE.

Reeb, in a paper presented to a French photographic society, recommends the following method of making gold chloride for photographic use:

Thin sheet gold....	50 grams.
Sodium chloride....	15 grams.
Nitric acid.....	40 cubic centimeters.
Hydrochloric acid..	160 cubic centimeters.

Place in a porcelain dish on a sand bath and dissolve. Cover the dish with a funnel to prevent waste during the process of solution. When solution has taken place evaporate till the salt begins to crystallize on the sides of the dish, then add 5 cubic centimeters of aqua regia diluted with 50 cubic centimeters of water, to insure a slightly acid product, and dilute to 1,000 cubic centimeters. A solution is thus obtained which contains 10 per cent of gold chloride, equivalent to 5 per cent of metallic gold.

Professional and Amateur Photographer.

A toning bath for ready sensitized paper may be prepared as follows:

A—Chloride of gold.....	1 gram.
Water	1 liter.
B—Borax	1 gram.
Tungstate of sodium.....	40 grams.
Water	1 liter.

—The News Monger.

Have used many of the best rifles of this country's manufacture, in calibers 22 to 45. For 2 years I used the .303 Savage. I found it an accurate, hard shooting arm. I do not think there is any ground for fear of the bullets glancing or not penetrating if the game is hit squarely. In the fall of 1900 I shot a 200-pound buck which stood a little over 100 yards from me. The bullet hit him in the shoulder. He dropped without making a single jump. Last fall I bought a Remington-Lee sporting rifle, 7 m. m. caliber. I tested it at the target; later, in deer season, I shot 2 bucks with it. I prefer this rifle to any other I have used. Its shooting points are equal to the best. The action is sure and simple. Can be easily taken apart inside of a minute, consequently it is easy to clean. Then its weight is but 6½ pounds. This means much to the man who carries the rifle on a 15 or 20 mile tramp. One of the deer I shot last season was about 90 yards from me, running. The bullet caught him back of the front leg, and he dropped in his tracks. The other was a 200-pound buck, running broadside to me. The bullet hit him just back of the shoulder, and stopped him instantly. In both cases the bullet passed completely through the deer. For hunting purposes I use soft nose bullets.

Remington-Lee, Calumet, Mich.

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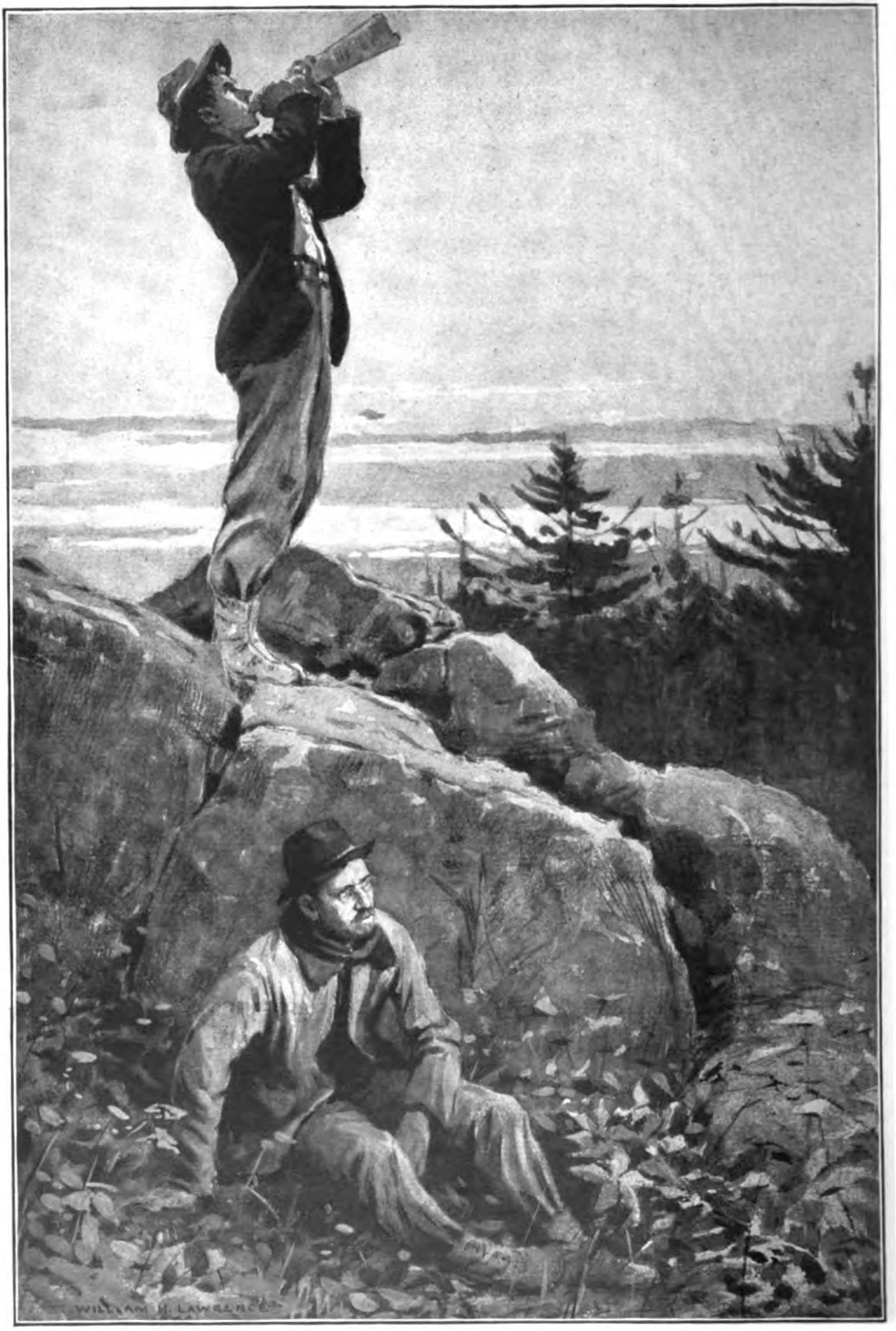


THE HORN WAS TILTED SKYWARD.

RECREATION

Volume XVII. OCTOBER, 1902. Number 4.

G. O. SHIELDS (COQUINA), Editor and Manager

BACK OF BARRIO AFTER MOOSE.

THE OBSERVER.

No country of an equal area, easily accessible to New England sportsmen, fulfills as does Nova Scotia the conditions necessary for successful moose hunting. Possibly the conditions savor too much of the parlor-hunt to suit some of our hardy Western friends; but a trip into good moose territory, 20 hours from Boston by boat, can be made strenuous enough to satisfy the majority of us.

Follow me a few days back of Barrio, in the Tusket region, and if a feeble pen does not defeat my purpose, I will give you glimpses of a pleasing country, game enough for fair minded sportsmen and certain incidents which befell our party in the autumn of 1901.

In the Tusket region no guide can pride himself on a reputation equal to that of Ned Sullivan. As tracker, caller and sure shot, he stands alone; while in knowledge of the country, great physical strength and the other natural gifts of a successful hunter and trapper, Fortune has been to him most kind. His was the commanding figure in our shabby quartette as we broke camp on Lake Barrio early one October morning and embarked in canoes for Toad lake and the adjoining country Northward. The other members of our party I shall designate as L., a business man of Boston, and B., his journalistic friend.

In Nova Scotia the chief function of the Provincial Game Society seems to be the acquisition of license fees. I wish I might truthfully record as great alacrity in enforcing game laws as in the collection of bills due, but I can not. Remarkably favored in its supply of big game, and in a country so easily patrolled, Nova Scotia has yet to do its full duty in properly conserving a glorious endowment. As a most valuable asset of the Province, as a duty to the world at large, there is every reason to give her noble game adequate protection. This has not been done.

As my first visit to the region was to be one of investigation, I decided not to invest to the extent of the $30 necessary for a non-resident's license to hunt the lordly moose. During the entire trip my only weapon of offense or defense was the camp axe.

Lake Barrio is one of the fairest sheets of water in the whole region, rather uneven in outline, dotted with a few islands and wooded to the shore. The surrounding ridges are covered with a fine hardwood growth of beech and maple, and as the sun rose on the morning of our start, a glory of autumnal tints lit up the more somber green of the omnipresent spruce. Our paddles soon carried us across 2 miles of shining water, and drawing the canoes well up on shore, we prepared to shoulder packs for the journey afoot.

The whole district has been extensively lumbered, and rude cart roads traversed the first stage of our journey, at all angles. While this fact made our trail easy at first, the frequent corduroys were found decidedly slippery after a 2 days' rain, and the mechanical swing so necessary for a

long jaunt was some time in coming. Occasional blowdowns varied the monotony of our march and tried the unused muscles in the upper half of the leg.

We had halted in a little clearing for the readjustment of packs, when Ned's warning gesture put us all on the alert. The wind, which was our chief enemy throughout the trip, had betrayed our presence to the sensitive nostrils of a cow and a bull moose, which had been feeding to leeward of the trail. In an instant they were gone. We spent an hour or more in trying to circle on the cunning animals, but it was of no use.

Once more we resumed our onward march, and mid-afternoon found us at a leanto which Ned designated as our stopping place for the night. It was the primitive makeshift of the hunter, a few poles leaning against a large boulder, with a birch bark roof and sides well laid on. Cosy and comfortable it looked to our appreciative eyes; and we made a good spruce bed to lie on, all hands turning to, removing the sodden wreck of a previous year, and bringing fresh browse, aromatic and wholesome to the senses.

The wind had died to almost nothing at 4 o'clock, when Ned announced that we "might as well give the thing a try, anyway." When he picked up the birch horn and began to give final directions, it was difficult to observe the slightest movement in the tree tops. The forest was hushed in absolute quiet.

Nature is sublime in silence. Her majesty is as impressive at such a time as in the throes of a tempest. Especially is this true in the wilderness, where one is alone with the might and grandeur of centuries. Changes are everywhere, but changes wrought in silence; silence most eloquent, pregnant of the infinite mystery of the woods!

Toad lake lay at the foot of the slope on which our camp was pitched, and some 400 yards beyond. It was but a drop between the hills, surrounded on all sides by a strip of open bog, several rods in width, to where the forest closed in. A point jutted out toward the center from the Southern shore and commanded either side. On this point L. and B. were told to station themselves, while Ned and I should conduct calling operations from a knoll above the camp.

The day was showing the first faint indications of its approaching end as we went to our respective stations. Ascending to the top of the ridge, Ned mounted to the summit of a huge boulder. I was content with a seat at the foot of the throne. The air was cool, the sky cloudless and a vivid blue. A faint shimmering through the trees beyond us marked the lake, the scene of possible carnage. We waited.

Finally Ned rose and, after a preliminary spit into the air, raised the horn to his lips. A few introductory grunts were followed by the 3 notes of the cow's call, given in masterly fashion. The horn was tilted skyward, and as it was slowly oscillated in a series of graceful curves, the tremulous and vibrant tones must have penetrated an immense distance through the silent forest. I can not do justice in any words at my command to the character of this performance. At the hands of a master, the impassioned sensuousness of this appeal to the bull, its different modulations, the circumstances under which it is heard, unite to render it an ever thrilling sound. Ned calls it the cow's "blart." It is the incarnation of brute passion.

After an interval of perhaps 5 minutes, the call was repeated. No answer.

Another interminable period of silence, followed by another effort from the guide. Soon he turned quickly toward me and whispered,

"Did you hear it?"

No; too far off yet for city ears. A moment later, however, it came to

me faintly, a sound not unlike distant wood chopping. The moose was probably 2 miles away.

A well judged space of listening and the horn was again resorted to. This time the bull's response was immediate and decisive. The quick, short bark, "ka-puk, ka-puk," thrilled us through and through, while the guide's face was a study in animation.

"He's coming along the ridge; coming fast," whispered Ned, "but he'll circle down to the lake before he heads for us and then the boys 'll have him."

Surely enough, the next word we had from his lordship showed his course had veered toward the lake. Minutes slowly passed and the first shadows of the coming dusk appeared, without an answer from our antlered friend, so recently in headlong haste to meet his supposed conquest. His characteristic caution had finally come to aid him. An armor of protective faculties was in use as he scouted through the undergrowth, silent, alert, suspicious. Then came the test of the caller's ability.

Ned descended from his position on the boulder and stood close by me on the ground. I noted stern determination in his face as he prepared for this crucial attempt. His rivals at the settlement were broadly commenting on the fact that Ned's last party out had failed to get its moose. This failure, though not his fault, and the attendant gossip, had annoyed him, and this time he meant business. The horn was pointed toward the ground, Ned almost crouched on his haunches and I could see by the play of muscles in his neck and cheek that the issuing tones, though less resonant than before, expressed the height of all his skill. It was evident the bull no longer doubted, for he replied at once with an impatient grunt and we heard a faint splash or 2 as he came toward us.

Ned carelessly tossed the horn on the ground and turning to me, his face lighted by a pardonable smile of triumph, said,

"That settles it! He's on the open bog, within 100 yards of 'em this minute. They'll shoot directly."

We listened with absolute confidence for several moments of intense excitement. This faith finally weakened as time passed and no rifle shot came to our waiting ears. I remember catching a spider, pendant from my hat brim, and viciously crushing him between my fingers as the conviction dawned on me that in some way the thing had miscarried. Ned's tense face was turned toward me in mute interrogation. What had happened?

Slowly Ned picked up the horn, discarded at what appeared the moment of success, for one last half-hearted attempt. At the same instant we heard a sharp "puk-a-puk" below us to the left, and the rattle of the bull's antlers against the trees. Ned flung the horn from him with an impatient gesture and ejaculated,

"Gone! By all that's holy! I knew that last bark meant trouble."

Wending our way back to camp, the guide set about preparing supper. We probably presented a rather forlorn and dejected picture to the other men as they joined us a little later. We certainly were in no joking mood. The outcome of this affair meant to Ned the approval or disapproval of his fellow guides in a world where men measure success by visible and tangible results; the recovery or loss of a prestige dear to him. Perhaps, in a less degree, failure might mean a blow at his very means of existence.

Ned didn't turn around as the others came blithely into camp; he was busy about the fire. Over his shoulder, however, he sent the cheery inquiry,

"Well, Mr. L., what was the matter?"

Mutual explanations followed. Our friends had heard no moose, seen no moose, could not believe there had been a moose near them. To be sure,

they had heard "a bear or something" splashing in the edge of the bog; had heard "a raven or something" croak rather loudly several times; and once had heard a limb snap. No, they didn't stand up in their place of concealment to investigate these noises. "They didn't seem important enough."

Ned coughed.

"Well, gentlemen, if you had investigated you would have seen an all-fired big moose mighty nigh you; and when you're moose hunting again don't pick a blind you can't see out of just because a moose can't see into it. We'll take a look around in the morning. Supper's ready."

After a fruitless attempt at calling in the early morning, we circled the lake under Ned's guidance and soon found the track of an enormous moose where he had left the ridge and headed for the lake. Step by step we followed the clearly defined course of the old patriarch, as he wound in and out among the trees in stealthy and cautious approach. Here he had rubbed himself against the rough bark of a spruce, leaving telltale hairs; there he had stopped to listen, with all 4 feet firmly planted in the soft moss. Without trouble we carried the trail out on the bog, even finding the broken limb, where he had stepped on a fallen spruce top. There he had paused again to listen, and there, perhaps, had come the last call which banished all his fears. Along the bog he must have made an impetuous rush, with a stride averaging 8 to 10 feet. Ned could not resist the remark, as he pointed to the splashes of mud thrown right and left,

"There's your 'bear,' gentlemen."

When we found where the moose had stood, in plain view, within 75 yards of our concealed friends, the mystery of his escape seemed inexplicable. We followed the tracks into the woods and the reason of his final and abrupt retreat was revealed. The huge footprints led straight to the trail of a party of hunters that had passed that way the day before. There he had wheeled and made off in a Northerly direction. It did not interest us to follow farther.

The mortification of our friends, as the tale graphically unfolded itself, was painful to witness, but Mr. L. lanced the whole matter when he said,

"I never looked for a moose to come out where he did."

It was clearer then. They had been the victims of a preconceived idea as to where they should see their moose. A preconceived idea of what a moose will or will not do is more dangerous to the success of a hunt than any other single factor. Indeed, it is almost fatal to it. A moose simply can not do what is expected of him.

We left camp that day and sought fresh grounds to the Southward; but Fortune, which had sent such a rare opportunity only to see it slighted, turned a deaf ear to all our prayers, and the rains descended on the end of a fruitless quest.

"Can she remember what happened on her 26th birthday?"

"Yes; she was just 18."—Yonkers Statesman.

THE HOME LOVE.

EMORY HAWES.

Give me a day on the Mexican line at a hundred and ten in the sun;
Give me a horse with a convex spine and a steer that can jump and run;
Give me a whiff of that prairie wind, it's a better tonic than wine;
Give me a man who I know has sinned if he hasn't learned how to whine.

Or a roaring night at Schultz's saloon, and a Briton's bellowing joke,
And French Pete's furious breakdown tune that screams thro' the frenzied smoke.
Give me the bullet-marked wreck of a room with its broken-paneled door;
Give me the stamping, thundering boom of booted feet on the floor!

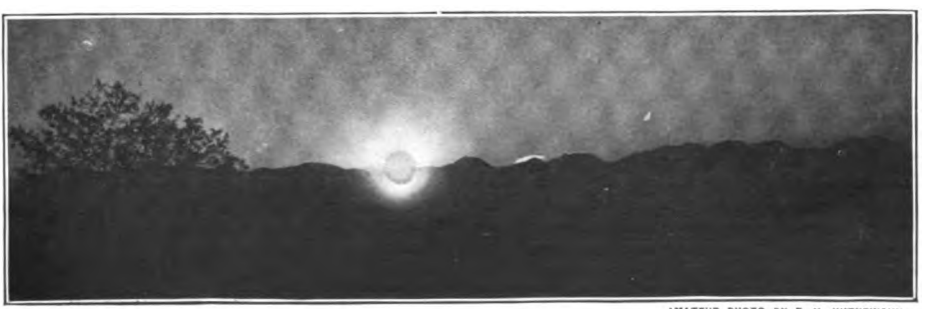
Give me the jingle of seventy spurs and a lowering lantern's light;
Give me the hush that the .45 stirs, and the whirlwind ride thro' the night!
We'll forget the God that saves us, but the old life will claim its own,
And we'll feel that much-sung throbbing for the place that we call "Home."

Oh, the dull horizon's dun, and the blazing, brazen sun,
And the dust that warps the mind and chokes the soul;
And the cattle dead and dying, and a ruined ranchman crying,
And the whiskey-laden, whooping oaths that roll!

Oh, the blizzard—blinding, howling—and the famished coyotes snarling,
And the shadows from our slowly failing fire;
And the terror-tramping trail, and the pack mule in the gale—
Oh, the unmarked grave beside a springtime mire!

Give me one breath of the salt sea breeze, one night by an old Dutch hearth;
One lilt of the spring thro' the maple trees, one bound of my boyhood's heart;
One fearless clasp of a girlish hand, one run through the orchard's snow;
One glimpse of the life of my native land, one day from the long ago!

Give me the gloomy and grimy court; one case to win or lose!
One lucky stroke my chief to report, one rush for the latest news!
One swaying note from the orchestra, one face divinely fair!
One touch of the graces from afar, for the clear eyes smiling there!



AMATEUR PHOTO BY F. H. KUTNEWSKY.

A 20TH CENTURY DAWN.

It will be noted that while only half the sun's disk is above the hill the lower half appears to show through the rim. Can anyone explain this strange freak of the camera?

THE BIG TURTLE OF SAWMILL POND.

E. M. LEETE.

Bill Smith and I had been on the brook since sunrise fishing steadily. I carried a skeleton rifle, strapped on my back, for a chance woodchuck, but none showed itself, and we devoted all our time to the trout. Now we wormed our way through the damp bushes to drop a line in some favorite spot; now stood on a rock at the foot of a rapid and floated our bait into the pool below; again, waist deep in the brook at the head of some deep hole, we dropped a squirming worm into the quiet water beyond.

Fair luck we were having, too. Out of Otter hole we had taken 7 handsome fish, the Turtle hole had yielded 6, while 5 more had left their home in the green meadow and joined their fellows in our basket. The brook that we were fishing wound down through the woods and meadows, and was finally stopped in its course by a dam which, though sadly out of repair, made a pond of perhaps 5 acres; the Old Sawmill pond, it was called. It was grown up with bushes and lily pads, leaving a streak of clear water through the center. We had fished at the head of the pond, and now, tired and wet, were sitting on a log near the dam, idly throwing our lines into the open water. My companion lived not far from this place, while my home was in the village 7 miles below. Bill knew every crook and corner of the brook from one end to the other, and apparently had a personal acquaintance with every fish in it. He knew where the big ones lurked and where only small fry could be caught. He knew when and what they would bite.

As we sat there on the log, Bill said:

"Do you know the largest turtle I ever saw lives in this pond? He has lived here 10 years to my knowledge. I see him almost every summer and last summer I saw him twice."

"How big is he?"

"Oh, he is as large as the head of a sugar barrel, and I should say he would weigh 100 pounds. I want him bad, but never could get him. A pair of wood ducks nest here, too, and in the fall I bring home some black ducks and teal from here and up along the brook. What ails the trout, my bait has not been touched for an hour? I will try on the other side."

With that Bill took his rod and disappeared through the bushes.

Now, my non-fishing friends, do not think for a moment that "it is all of fishing to fish," nor, as I have heard it put, that fishing is "a string with a worm at one end and a fool at the other." As I sat there on the log, in the sunshine, while the vapor steamed from my damp clothes, it was good to be alive. It was good to have ears to hear the bobolink in the alder bush just back of me, and eyes to see the wonderful picture just in front. The bushes fringing the pond were taking on their summer garb, the trees of the woodland beyond were dressed in brightest green, while overhead in the deep blue of the sky, a circling hawk put life into the picture. The sun was hot on my back, and poured down on the still water, making the bottom plainly visible for some distance out until it changed into the blackness of the deep water beyond.

But what is that? A human hand? No, but the likeness was striking, as out of the black water there rose a ghostly gray shape, with a savage head, and feet that in the dimness looked like a man's hands. Up it rose until its shape was plainly visible. Then it dawned on me, that the big turtle Bill had spoken of was before me. He was fully as large as my friend said, with some to spare. As he floated lazily to the surface I laid down my rod, picked up the rifle and waited. Slowly the great reptile moved until his back and head showed above the surface. When he thrust his head up and opened his mouth the rifle came to my cheek, and, glancing along the clean brown tube until the ivory front sight was fair against his livid throat, I pressed the trigger. Through some happy chance, the ball either entered the brain or cut the spinal cord. The victim died with scarce a struggle. A shout, and Bill was with me. Together we tried with sticks to get the immense thing to shore but without success.

"Well," remarked Bill, "I am half wet through now, and I want that turtle bad, so here goes"; and in he went and brought it to land.

It came fully up to his description and it was all we could do to lift it into the wagon.

Fond Mother—Willie, you should have known better than to fight that Smith boy.

Willie—I know, mamma, but I thought I cud lick him.—Ohio State Journal.

THE VEXED BERMOOTHES.

JUDGE WARREN W. FOSTER.

JUDGE WARREN W. FOSTER.

About 700 miles Southeast of New York, out in mid-ocean, lie the Bermuda islands. Though in winter every ship to the Bermudas is loaded with tourists, the islands themselves are strangely unfamiliar to most Americans. They are of coral formation, surrounded by a coral reef, through which a single navigable channel opens. Inside the reef the waters are peaceful and beautiful beyond description. More salt and more buoyant than the waters of the North, they are vastly more translucent. On a still day the bottom can easily be seen and exactly studied at depths of 15 to 30 feet. This surpassing clarity of the water makes a trip to the reefs most interesting. Beautiful corals and sea fans yield readily to the grappling irons with which every boat is provided. Exquisite sea mosses and wonderfully curious vegetation abound. Now and again sea monsters and sea midgets dart hither and thither. Every look is rewarded with a new and wonderful vision, and fishing for coral is as interesting as fishing for fish.

A thin but fairly rich, red soil covers the coral formation of the islands, yet it requires the constant and regular application of fertilizers to grow profitable crops. Formerly lemons, limes and oranges were plentifully grown, but a blight came upon them and now few such trees remain. Bananas grow readily, a small yellow variety, exceedingly delicious, yet not enough for the home market. Potatoes and onions are the staple crops. The farms are all small; mere patches tilled by hand.

Roses, hibisci, oleanders and other beautiful flowering plants and shrubs are in luxuriant and fragrant blossom the year round. The Bermuda, or Easter, lily is deservedly famous. It was first exploited by General Hastings, whose beautiful home, "Fairyland," is one of the show places of the islands. It is situated on an arm of the sea, so sheltered that its waters always reflect, mirror-like, the marvelous interlacing of its fringing mangroves.

The red cedar is the principal native wood and the hills and ravines are covered with its beautiful evergreen. Palms of all varieties grow luxuriantly in the open air,

BIRD'S EYE VIEW OF THE BERMUDAS.

OLEANDERS IN BLOOM.

from the stately royal palms in the mayor's beautiful garden, down to the chaste and dainty sago palm, with its crimson, waxy fruit.

At this time Bermuda is best known in the States as an encampment of the Boer prisoners of war. Darrel's island was the chief encampment. It is surrounded on all sides by deep water. One end was set aside for the prisoners, the other end for the Warwickshire regiment, which was assigned to the duty of guarding the prisoners.

Many were the attempts to escape. One prisoner succeeded in reaching New York, and this but served to increase the vigilance of the guards. Another, attempting to swim past the dead line, was shot in the nose. A third took a small wooden box, bored holes in it for ventilation, covered his head with it and attempted to swim away by night. The sweeping searchlight of a man-of-war showed but a box floating on the water, yet it seemed passing strange to the guard that an empty box should float to windward. A boat was lowered to investi-

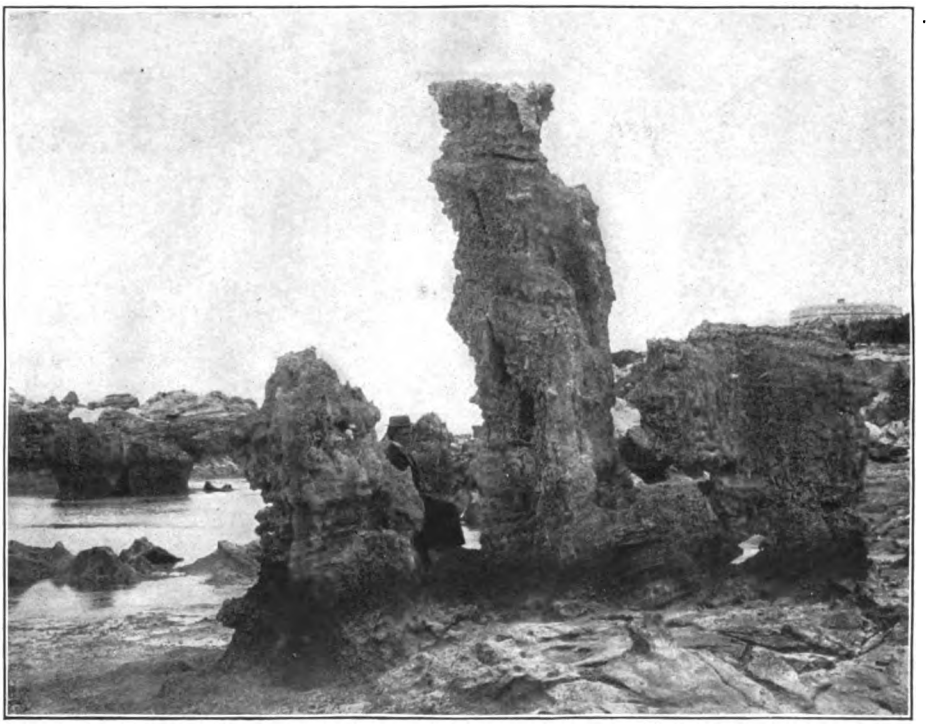
BOILING ROCKS ON THE SOUTH COAST.

gate and the mystery was explained by the capture of the escaping Boer.

For recreation the Bermudas are ideal. The temperature in summer rarely exceeds 90 degrees and is tempered by the moist ocean breezes. In winter the thermometer averages about 70 degrees, so that life out of doors is both possible and delightful. There are golf links, tennis grounds and cricket fields; roads, made by scraping the soil from the coral rock, as hard and smooth as asphalt; with many objects of interest to give a purpose and delight to a drive, ride or walk. These roads are an object lesson to the visitor from the States. The Government has expended large sums for their construction and maintenance, cutting through hills of rock, in many instances, to reduce the grades. There are no railroads or trolley lines on the islands, the carriages are good and the bicycle is a universal means of travel. Yachting within the smooth waters of the bay and sound, or in the rougher waters beyond, may be enjoyed in its perfection. The rig of the Bermuda yacht is peculiar. A long bowsprit carries a large, almost balloon jib. In racing a still longer jib boom carries a jib topsail. The mast is a pole mast, very tall and raking away aft. The mainsail is jib headed or leg-of-mutton, with its foot stretched on a boom, though sometimes on a sprit. The body of their yachts is of deep draught, and heavily ballasted. They stand any kind of weather, work handily and sail fast.

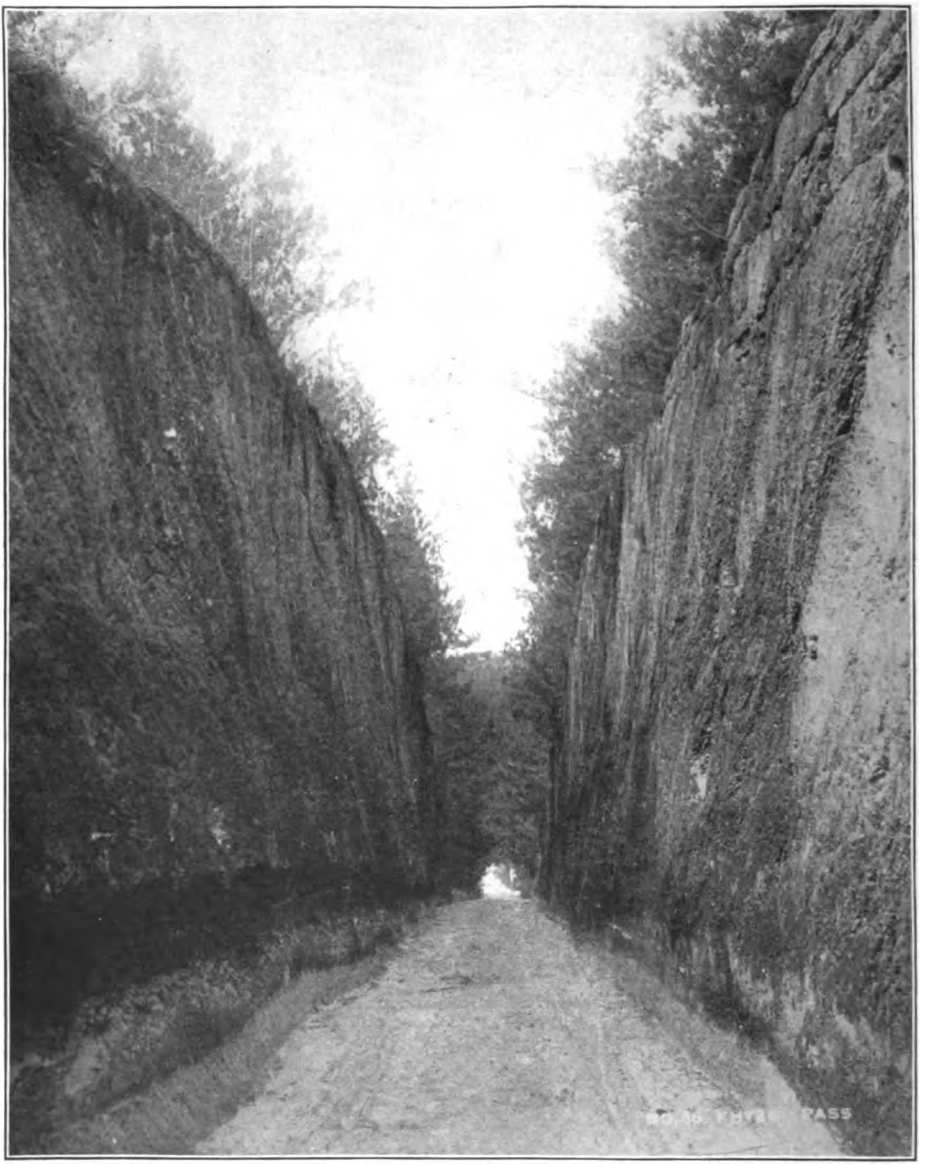
Rowing appears not to be a favorite amusement, for the rowboats are heavy and clumsy, but well adapted for rough weather.

Fishing is good, but better in summer than in winter. It is said by the natives that the fish South of the Gulf stream are different in kind from those North of it.



ARM CHAIR ROCK ON NORTH COAST.

In summer great rock fish, redsnappers and groupers, weighing 20 to 50 pounds, are caught off the reefs. In winter hogfish, bream, sailors' choice, porgies and amber fish are principally caught. The porgy is esteemed the game fish. In shape it is like the scuppogue, which is the "scup" of Martha's Vineyard, and the "porgy" of Long Island. In weight the Bermuda porgy far exceeds the scuppogue, running 8 to 15 pounds. Porgies are caught in about 20 feet of water, over the patches of coral rock, with a bait of mussels or squid. Sea eggs are frequently broken and thrown in the water about the boat to attract the fish; chumming, we call it at Sandy Hook



KHYBER PASS.

and Fire island. These sea eggs detract from the pleasure of bathing in Bermuda waters. They look much like a chestnut burr, but the spines are of shell. When stepped on they enter the flesh and break off and a surgical operation is necessary to remove them.

Many of the Bermuda fishes are of marvelous beauty. *Facile princeps* is the angel fish, with its blue, violet or lavender body and long, graceful fins, flashing at times all the hues of the rainbow. When caught its beauty quickly fades. It is about a foot long and is esteemed a most delicious pan fish.

There are also the parrot fish, marked with all the gaudy colors of the red parrot; the fiery red squirrel fish; and the schoolmaster, so named because its chief characteristic is its stripes, loud and gaudy. The amber fish furnish the best sport. They are also known as "floating fish," because they swim near the surface. They appear in many respects much like our bluefish, though they are caught still fishing, with the squid bait. They range from 7 to 10 pounds in weight. They bite voraciously and large catches are easily made.

One of the unique sights of Bermuda is the "Devil's Hole," a small pond having an underground connection with the sea some hundreds of feet distant, and stocked with fishes. Last summer 1,500 groupers, rock fish and redsnappers were put in it. These are deep water fish and the swelling of their air bladder, when brought to the surface, would kill them were it not punctured. It is punctured and they then live and thrive near the surface. The fish are accustomed to visitors, and when one appears they thrust their heads out of water begging for bread. Voracious monsters they are, with red and horrid jaws. The story is told of a luckless dog jumping in among them, when his master threw in some bread, and being dragged beneath the surface never to be seen again.

Fishing in the Bermudas is done altogether with hand lines, and the quality of the sport is judged by the quantity of the catch. The amber fish would, however, give rare sport for the rod and reel.

Bermuda lobsters differ from those of the North in that they have no claws. They grow to a large size and are esteemed a great delicacy. The Bermuda oyster tastes like the hard clam of the North, though its shell resembles that of the young oyster except that it is thinner and of a greater pearly luster. Bermuda scallops are larger than those of the North and the shell is less corrugated. The body and the eye are both eaten. They taste quite like the scallop of the waters about New York.

The hunter who visits the Bermudas, should leave his gun at home; he will find no use for it. Song birds abound, but few, if any game birds or water fowl, as far as I could learn, exist there. Snakes are as scarce as the good Saint Patrick said they were in Ireland. The Bermudas are a naval and coaling station of Great Britain. In winter they are the headquarters of the British North Atlantic Squadron; while one or 2 British regiments are always stationed there. This gives a social life to the islands that visitors find most attractive. The gay uniforms of the soldiers, officers and marines contribute hugely to the brilliancy of the aspect.

From New York the Bermudas are easily reached by the well appointed steamers of the Quebec Steamship Company, which, in the season, maintains a 5-day service. The passage takes 2 to 3 days. Recently the Bermudas have become famous as a summer resort, as the temperature, even in mid-summer, is made agreeable by the cooling ocean breezes.

Bermuda houses, almost invariably, are built of coral rock. Scrape off the soil anywhere and then, with chisel and saw, cut out and fashion as you will the material before you. "It cuts like cheese, but lasts like iron for things like these," for it quickly hardens on exposure to the air. Great square blocks form the foundation and walls; while slabs, sawed as thin as slate, are used for the slanting roofs.

The visitor to the Bermudas is far from the madding throng, his mail comes only once in 5 days, cable rates are almost prohibitive, and the newspapers when 5 days old cease to interest. The rest and quiet, therefore, are perfect.

Teacher—What is that you have drawn on your slate, Tommy?

Tommy (aged six)—A woman and a house.

Teacher—But I see only the house. Where is the woman?

Tommy—Oh, she has gone into the house.

—Rochester Herald.

WHEN FATHER HANGS A PICTURE.

CHARLES N. DOUGLAS.

When Father hangs a picture on the wall
there's lots of fun,
An' ev'ryone aroun' the house has got to
move an' run.
The ol' step ladder's fixed in place, the
hammer's nowhere's roun',
An' when they start to look for nails, the
nails ain't to be foun'.
Pa shouts aloud his orders, an' Ma says
'twas ever thus,
When a man starts in to do some work
there's bound to be a fuss.
An' Pa says women's useless things an' al-
ways have to call
A man if they should want to hang a pic-
ture on the wall.

Pa gets a roll of picture wire, an' then a
measurin' tape,
An' says he'll show the women how to put
the house in shape.
Off to the parlor then he goes and partly
there disrobes
And bangs the ladder right against the
shandyleer and globes,
Then shouts for Ma, an' gives her fits be-
cause she didn't fly
To warn him when the ladder to the shan-
dyleer was nigh.
Then Baby 'mongst the broken glass un-
noticed starts to crawl.
Oh! there's heaps of fun when Father
hangs a picture on the wall.

They bandage up the Baby, an' they sweep
up all the glass.
An' Pa says, at hangin' pictures, nobody's
in his class.
There's artists in most every line, Pa 'lows,
but you can bet
That for real artistic hanging, no one's
equalled him as yet.
Then he holds a nail between his teeth, and
Ma remarks she's glad,
As now at least his tongue is stopped, an'
that just makes Pa mad.
An' down he lays the law to Ma, who goes
out in the hall,
An' leaves Pa in his glory hangin' pictures
on the wall.

Pa measures up the wall an' squints and
then starts in to back
So as to get a better view, and gives his
head a crack;
An' oh! the things that poor Pa said, I'm
glad no one was near
When his bald head bumped up against
that parlor shandyleer.
Then up the ol' step ladder, nail in mouth,
he starts to climb
An' says he 'lows that picture's just as good
as fixed this time,
Then hits that nail a mighty whack, an
"murder!" starts to bawl,
For it's not the picture, but Pa's thumb's
got nailed against the wall.

The damaged thumb is bandaged up, the
head is plastered, then
Up that old ladder, "do or die," once more
Pa sails agen;
An' then he goes for that ol' nail, an' hits it
such a swipe
An' not only drives it through the wall,
but through an' ol' gas pipe,
An' just as we all smell the gas, the ladder
gives a crack
An' crash it goes an' sends poor Pa a-
sprawlin' on his back.
His ankle sprained, for Doctor Jones we
send a hurry call
To tell him Pa is sick with "picturitis
on the wall."
It beats a circus when Pa hangs a picture
on the wall.

The Baby's cut with broken glass, an', as
for poor ol' dad,
He's sprained a foot, an' lost a thumb, his
head's cut awful bad.
The shandyleer is wrecked for life, the
gas it's made Ma ill,
An' 'twill take Pa's savings for a year to
pay the plumber's bill.
The parlor looks as if a cyclone slept
in it a week,
Or a band of Texas steers had been there
playin' hide and seek;
An' ever since that day, Dad, he's been
singin' mighty small,
An' Ma, not Pa, henceforth will hang the
pictures on our wall.

It is easier to rob a million men of a dollar each, than to rob one man of a million.—Exchange.

OUR TRIP TO SEBOOIS.

W. T. CRITCHLEY.

The autumn leaves were beginning to take on beautiful colors. I met an old friend. We talked it over. Decided it would be a good thing to get in the woods. Agreed to start about November 1. Thought the time would never come. Finally it did.

November 3d we took the evening train out of Boston. Were bound for Patten, but the train was in no hurry. Stopped at every back door. Had to change cars at Patten junction. Got off station before, by mistake. Made us mad.

Hunted round for team to take us on. Found one.

Driver soaked us $2 apiece.

Madder still.

Found team waiting to take us to Seboois camp. Had intended going to Trout brook.

Thought it good scheme to stay at Seboois.

Found out it was.

Got on about 6 miles.

Misunderstanding with driver about taking us way in.

Other fellows on board were going off another road to Wrenn's camps.

Driver tried to drop them at junction of 2 roads.

They got pretty mad.

Had a little squabble.

All mad then.

Finally saw team coming.

Asked driver to take us in to Shinn ponds.

Said, "all right."

Went about a mile.

Axle bolt broke.

Let us down in mud.

Front wheels and horse kept on going.

Devil of a fix.

Thought it good scheme to get the horse back.

Was.

Had some rope; tied wagon together; gave driver dollar.

Made him happy.

Got on after a while.

All happy then.

Stayed at Shinn ponds all night.

Struck out on foot next morning for Seboois camp.

Roads awful.

Saw deer going in.

Pretty hungry when we landed.

Had good dinner, though.

Pumpkin pie, prime.

Late when we turned in.

Out early next morning.

Pretty chilly.

No snow, though.

Was going through some dead timber.

Saw deer going like the devil.

Didn't fire.

Would rather miss than wound.

Next 3 days didn't have any luck.

Woods noisy.

Froze a little.

Leaves cracked like glass.

Didn't like that.

Saw 2 more deer.

Two white flags, rather.

Next 2 days same luck.

Morning after started over in woods back of camp.

Could see Mt. Katahdin covered with snow.

Beautiful.

Got into woods.

Was going through some black growth.

Heard little crackle.

Heart jumped.

Saw a doe.

Waited.

Didn't want her.

She skipped.

Began raining.

Glad of it.

Made leaves soft.

Was looking under trees.

Saw something move.

Stopped breathing.

Saw 2 bucks.

Watched them a minute.

Fired.

Right through shoulders.

Guess bullet is going yet.

Other buck didn't move.

Foolish buck.

Fired again.

Both mine.

Didn't take long to dress them.

Both killed quick.

Didn't go 10 yards.

30-30 Winchester.

Good gun.

Also good bucks.

Weighed 165 and 140.

Shooting all done then.

Waited to see what luck friend would have.

He got a doe.

Thought we would break camp next day.

Met a fellow from Bangor.

Had shot 2 does.

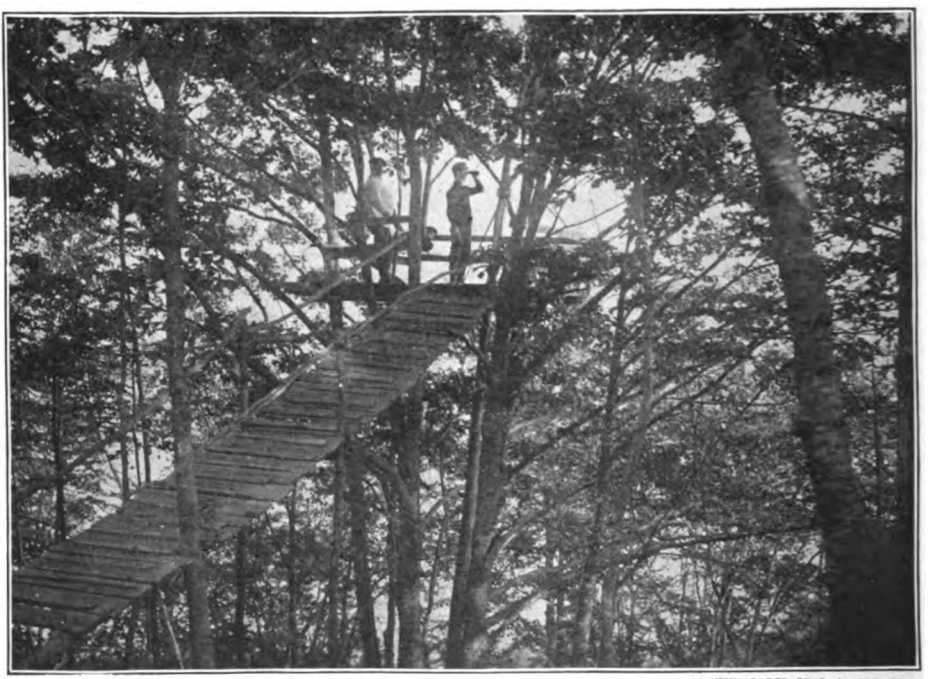
Next day killed another.

Wasn't satisfied, wanted bucks.

Said he was going in to Trout brook after them and moose.

Asked him if he had heard of Shields.
Said, "No."
Wanted to know who he was.
Told him.
Got him interested.
Thought he would like to meet Shields.
Advised him to wear copper bottomed trousers when he called.
Didn't seem to understand.
Wouldn't be afraid to bet he killed a dozen does before he came out, if he saw them.
Heard good things about game laws and game.

Fellow fined $100 for shooting cow moose in Patten.
Land owners don't want any shooting in September.
Too many fires.
Think it good idea, too.
Season too long anyway.
Little boy at farm had counted 112 deer at spring in front of camp, since summer.
Guides say caribou are numerous around Mt. Chase.
Birds not plentiful.
Saw only 3.
Guess they are alive yet.
Going back to see, next year.



THE LOOKOUT AT HAMLIN LAKE, MICH. AMATEUR PHOTO BY R. L. SCHLICK
Made with Premo Camera and Bausch & Lomb Lens.

"Well," asked the caller, "have you cleaned everything up since the Fourth?"
"Almost," said the mother of a large family of boys, putting her apron to her eye. "There's one of Dickey's fingers we haven't found yet."—Chicago Tribune.

MY MOOSE HUNT IN 1901.

W. G. REED.

I arrived in Perth, September 12. Alec was waiting for me with his team, and we were soon on the road to his house for the first night. After supper I unpacked my duffle and we made preparations for an early start in the morning. Alec picked up my rifle, looked it over and said:

"I see you still stick to the 30-30."

"Yes, it is good enough for me," I replied.

"I was in hopes you would bring a more powerful gun this year."

"What's the matter with that?" said I. "You know what it did for me 2 years ago —one caribou that never took a step after being hit, and one moose that went but 10 yards; each struck but once. What more do you ask?"

"Yes, I know," said Alec; "you got the bullets each in the right place."

"That is just the point," I returned. "I can put more bullets in the right place with the 30-30 than I can with a gun that kicks. All large bore, heavy bullet guns have an unpleasant recoil. To put the bullet in the right place is necessary with any rifle."

"I don't agree with you. I want a gun that will paralyze if it hits at all."

"That gun is not made, of sufficient light weight for a man to carry."

"Oh, yes it is," cried Alec. "There (picking up a Martini-Henry) is the rifle. If I touch a moose anywhere it's mine."

"Oh, rats!" I exclaimed, "You can not paralyze an animal unless you hit some nerve center; the brain, vertebræ, kidneys, or ham string; and a 30-30 will do that. For a paunch shot the 45 or 50 caliber would, doubtless, be better; but give me the weapon with which I can put the most bullets in places that will cause death quickly."

When a man receives a gunshot wound, he realizes the situation, he gives up, and in many cases would welcome another bullet that would put an end to pain. An animal, however, merely feels, instinctively, that danger threatens and he puts forth all his energy to get away. If mortally wounded, he will go until his natural forces are spent. If not mortally, he will get away and the wound will heal.

Friday morning, September 20, 2 bulls came out in answer to a call. I decided that neither had antlers large enough for me. Alec insisted on my shooting at the biggest, as I might not get a chance at anything better. I reluctantly complied, cutting off a lock of hair, but not doing other injury, and they both disappeared.

"Oh, hang that 30-30," said Alec. "It is no good."

"Now, don't blame the rifle," I replied. "The fault was mine. I am glad now I fired, and glad I missed, because I am sure he was not what I came for. Glad I fired, because I was too confident that I would hit and so was careless in aiming. Now show me a moose with antlers that I want, and I'll take them home."

Three other bulls were seen in the next few days, but under such circumstances that shooting was impossible. My contract with Alec required that on Wednesday, October 2, I should return to the depot camp at Trousers lake; my successor was due to arrive there that day and he would claim Alec. Tuesday, October 1, still no game, and it looked as if I should have to go home with nothing. We had had unpropitious weather, high winds with a great deal of rain. So far, only 2 calling days.

On the last afternoon the wind died away, and we started out. Calling brought no answers, and reluctantly we turned the canoe toward camp. We were near the landing, about 5 o'clock, when Alec suggested that as we still had half an hour of daylight, we try the lower end of the lake. About 5.15 we stopped and he called. A few moments of suspense, and a distant "Whoof" came to our ears.

"By Jove! there's an answer. We must get around on the other side of this island."

Paddling rapidly we were soon in a good position, and another coaxing invitation was sounded. At 5.25 an enormous bull appeared on the shore, exhibiting only head and fore-quarters. I fired 5 shots before he disappeared and we were confident he was wounded.

In addition to his ability as a caller Alec has a hunting instinct. Instead of landing where the bull was last seen, he paddled farther down the lake, then pushed in at an angle so as to cross any trail. Within 5 minutes he found the animal dead. He could not see the canoe, but calling to me to keep on shouting, with his knife he blazed his way out. In the last 15 minutes of my last hunting day the bull was called out, shot and found. It was then nearly dark and we returned to camp for supper. Then, with lanterns, we went back to dress the game. Alec wished to save the hide for moccasins; so after removing the head and feet, all I wanted, he began to skin. Soon his knife struck a hard substance.

"How did either of your bullets reach this place?" he asked. One had struck high, back of the shoulder, ranging backward; one had struck on the other side, low down, back of the shoulder, ranging forward toward the heart.

Carefully uncovering, he found a large bullet held in a sack that had grown about it, and there were no traces of a recent wound in its vicinity.

We reached the depot camp about noon Thursday. David, with his October party, arrived soon after. He was shown our find, and he pronounced it a Martini-Henry bullet that he had fired at a moose 2 or 3 years before. He claimed, also, that in its flight it had collided with a small tree, which explained an abrasion on one side.

"There," said Alec, "I knew there must be some good reason why that bullet did no more damage. You couldn't expect it to go through a tree and do what it would if there had been no obstacle. I don't believe the 30-30 would have done nearly so well, under same circumstances; but the tree was not to blame. The fault was behind the rifle."

On the whole, I had a most enjoyable trip; plenty of fatigue, wet, cold, and other discomforts, with 14 days 9¾ hours of disappointment. Then 15 minutes of rising hope and exultation at success; enough for a year, and to cause me to forget all that was unpleasant.

What is the best time for moose hunting, and where?

If a man would merely like to shoot a moose, if expenses must be kept down, and if comfortable living is necessary, let him go to Maine and take chances. About one hunter in 50 gets a moose. The old, big antlered heads are scarce, though, unless one penetrates far North, 2 or 3 days' journey from the railroads. The season is short, October 15 to December 1.

A trip to Maine, including 15 days' sojourn at an accessible camp, would cost anywhere from $100 to $150. If in 10 such trips the hunter got one set of antlers worth mounting he would be doing better than the average. If he penetrates the Northern wilderness he will need more time and his expenses will be greater. As he can only engage in still hunting he will not greatly improve his chances. There are plenty of moose in Maine; cows, calves and young bulls. Old bulls with big antlers are scarce.

If one must have a moose, New Brunswick offers much better chances. The open time begins September 15 and does not close until January 1. The hunter has a choice of calling, still hunting or tracking on snow. In the rutting season, with a competent guide and fair weather, one is certain of one or more chances for shots. In the still hunting season, conditions are about the same as in Maine, except there is more game. The tracking season, beginning with first snow, offers chances all its own. With a competent guide and skilful hunter you need not come home with anything less than a 50-inch set. If you want caribou, they are there.

A trip to New Brunswick, 2 to 3 weeks in the woods, will cost $150 to $300. If you are a good shot, you will not need to make a second trip. The heads brought out in September and October average smaller than those killed after the snow flies. The reason is, that in the rutting season, the young bulls rush out on hearing a call and expose themselves much more freely than do the old ones. After snow flies, the good guide will carefully select a large bull's track, and run him down, disregarding the small bulls, cows and calves.

In the season of 1900 my guide and his brother handled 9 sportsmen. They brought out 8 good moose heads, running 35 to 58 inches spread. The ninth sportsman had 4 chances, but declined all, as neither would beat the one he had obtained in a previous year. Five caribou were also shot, and no man came home empty-handed.

Do not think it is only necessary to go to New Brunswick to get a moose. A competent guide is essential, and they are as scarce there as good heads in Maine. Do not contract with one who is not well recommended. There are 4 requisites to getting moose, even in New Brunswick; endurance, a cool head, skill with the rifle, and a good guide.

If anyone wishes to go on a moose or caribou hunt where such game is plentiful, and wishes a guide who knows the country, how to take care of his patron, and who is reasonably sure of showing him his heart's desire inside of 2 weeks' stay in the woods, let him correspond with Alec Ogilvy, Jr., South Tilley, Victoria county, New Brunswick.

"Bah Jove! All the girls around here smile at me."

"Well, that shows they have some manners. Anywhere else they would laugh outright."—Chicago Daily News.

MOUNTAIN QUAIL SHOOTING IN LOWER CALIFORNIA.

CHARLES B. NORDHOFF.

The mountain quail is, in my opinion, the best game bird of the West. The valley quails are considerably smaller and afford much easier shooting. Nowhere else have I seen mountain quails so plentiful as in lower California. Our party, consisting of Dr. B., my father and me, were encamped on top of the corona, which is basin shaped, the sides all sloping to the center, down which runs a stream.

The first evening in camp we saw a large covey of mountain quails flying across the canyon to roost. Next morning we were awakened by the whistle of hundreds of them. Seeing the impossibility of getting further sleep, Doctor and I dressed and sallied forth.

Each took a side of the canyon; Dr. B. the right, I the left. The basin was about 500 yards in width. The whole bottom was covered with giant pines, between the trunks of which was grass waist deep. The right side of the canyon was covered with loose heaps of boulders; on the other were thick brush and dwarf piñons.

I had been walking about 15 minutes when I heard shots from the doctor's direction. Looking up I saw 5 quails pitch about 50 yards in front of me into some thick manzanita brush. Sneaking carefully toward the bushes I saw them rise 40 yards away and go skimming off, despite the 2 charges of No. 7 which I hurled after them. I marked them down and stalked them systematically. When within 20 yards of where I had last seen them, the whole covey rose. The flurry they made as the big birds got up startled me so that my first shot went wild, but taking careful aim as they sped away I dropped the hindmost cock. Running forward with my empty gun, I flushed 3 more, which got away safe before I could reload.

A few minutes after, while sitting down, I saw a hen quail walking on a rock, jerking her crest uneasily. I potted her just as she was about to fly. Walking on I heard the call of a quail from near the roots of a pine. As I walked slowly toward the tree with my gun raised and my finger on the safety catch, 2 birds rose and flew in opposite directions. With a right and left I dropped them within 40 yards of each other, both cocks, in the pink of condition.

At intervals I had heard the bang of Dr. B.'s Parker, and concluded to see how many birds he had. On the way over I got 2 single birds. I found the Doctor had 8, all cocks.

We decided to try our luck among a great number of boulders, covering perhaps 3 acres. Fifty yards ahead we heard the call of a quail, which seemed to come from a sumac bush among the rocks. Presently we saw a large covey running ahead of us instead of flying. Seeing that we could not overtake them I made a circuit, headed them into a little canyon, and each of us ran down a side. When near them they flew out at different sides of the canyon, giving us easy shots. Each got a bird.

On the way back to camp we saw immense flocks of mountain bluejays. These beautiful birds are a little larger than robins, with large, bright blue crests. They are found only in the high mountains of the Western States and Mexico.

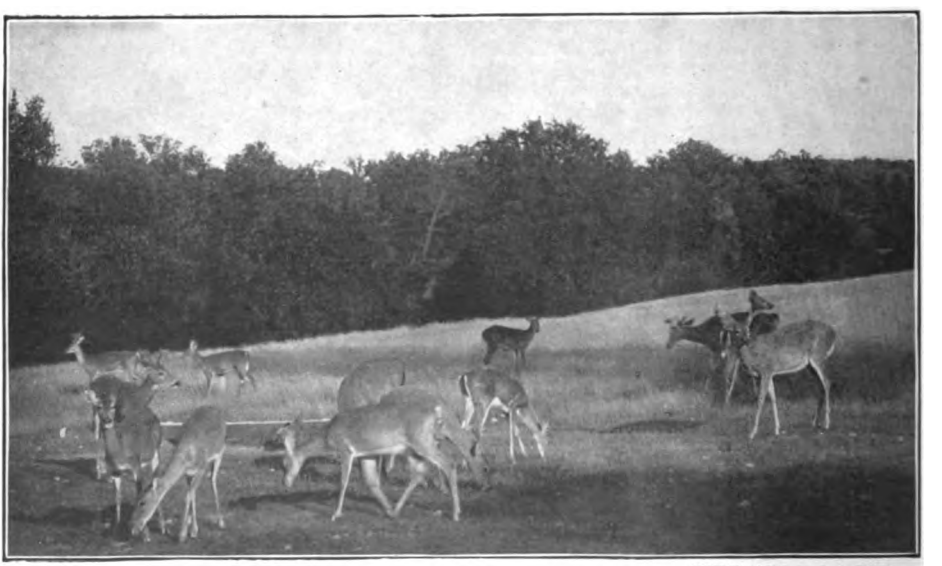
HE AM DE FISH.

C. S. MARSHALL.

De trout he'll sometimes loaf an' wait,
  Den kinder wink at you;
De bass he ketch right holt de bait,
  An break your pole in two.
De perch he am so dredful small
  He scacely makes a taste,
An' de carp, whene'er he bites at all,
  Am only so much waste;
De eel am such a slipp'ry ting
  A nigger 'fraid of him;
While de turtle he am sho'ly king
  Of all de frauds dat swim.
But de catfish wid de forked tail—
  De fish wid de yeller sides—
De one what bites in calm or gale
  Am de fish to stuff our hides.
He takes yo' bait an' gulps it down,
  Clean down to his livin' place;
He am de fish, fried good an' brown,
  Dat sho'ly fits my case.

AMATEUR PHOTO BY A. B. RICHMOND

AN EASY WAY.
Made with Premo Camera, on Eastman Film. Printed on Velox Paper.



AMATEUR PHOTO BY E. J. STONE.

DEER PARK ON THE HURON.

ELK HUNTING IN WYOMING.

HARRY A. SHIELDS.

I had long wished to hunt big game in the far West and last summer I found 2 congenial friends, Mr. J. M. Murdock and Mr. W. W. Porch, of the same mind. We accordingly began, with the help of RECREATION, to make inquiries as to the best locality, etc. We decided to try Jackson Hole, Wyoming, and wrote Mr. S. N. Leek. He advised us to go in October. We then secured a copy of "Camping and Camp Outfits," by G. O. Shields, from which we got much useful information.

We started October 1st from this place, leaving Chicago the 2d, by way of the Chicago & Northwestern and the Union Pacific to Pocatello, Idaho, where we changed to the Oregon Short Line, which took us to St. Anthony, the end of our railroad journey. We had the finest train service and the most courteous attention possible throughout, which gave us an exceedingly favorable impression of everything Western, especially of the railroads in that part of our country.

At St. Anthony we were met by the local liveryman whom we had engaged to take us to our guide's ranch, Recreation lodge, 90 miles distant. We left St. Anthony at 1.30 p.m. and drove 38 miles to West's, where we had supper. We then pushed on to Jones', 20 miles farther, which we reached at midnight. In the morning, after an elk breakfast, the first we had ever tasted, we pulled out for the hardest part of our wagon journey. We soon struck the foot of the Teton mountains, and the farther we went the rougher and steeper was the road. Finally we all got out to walk to the top of the divide. We had 4 big horses in the spring wagon but they could go only a few feet without a rest. Luckily we met 2 empty wagons coming West and made a bargain with the drivers to help us to the summit. They hitched 2 of their horses in front and we finally reached the top. At 6 o'clock p.m. we were at our guide's place. It was nearly noon Monday before we got the 6 pack horses ready. Then we rode for the Grovont river, 22 miles distant, which we reached before 5 o'clock and went into camp for the night. The next morning we took the head guide and struck over the mountains to hunt, while the pack horses, under the care of Charles Wort and the cook, went by trail to State creek, our permanent camp.

Up to that time we had seen but one antelope, which Mr. Murdock missed. About 2 o'clock p.m., while riding through a park, we discovered our first elks, 2 bulls, in a fir woods to our right. The wind was in our favor. We dismounted and got ready our 30-40 Winchesters. The elks had taken the alarm, but we dropped both, one dead and the other mortally wounded. We were much elated at our early success, but we had to hurry. We quickly took a few photos, then the guide secured the elk heads, took some of the meat and we went on to camp, which we reached about dark. The tent was up and a big fire was burning. Supper was soon ready for us, and we did justice to it with the relish that only outdoor life can give.

The next day Murdock and I went with the guide to bring in the heads we had killed and some more of the meat, while Porch went with Charley to hunt for elk. On our way out we saw a large bull but too far off to shoot. We also saw 2 more bulls which we could have shot, but did not think their heads very good. We found our dead elks but were sorry they had not been disturbed by bears as we had hoped they would be. We packed the heads and what meat we could on 2 pack horses and returned to camp.

Thursday we hunted all day over rough high mountains, and though we saw a number of elks we did not get a shot. Friday we killed 3 large bull elks and I could have shot 3 more but as I had my allowance I let them go.

Saturday Leek went for the heads of 2 elks which had been left out the day before, while the rest of us staid around camp, and caught some trout in a small stream just below. They measured 13 to 15 inches. Monday we all went after antelopes. They were scarce on account of the lateness of the season, as they emigrate East to the great desert about the 1st of October. We killed 4.

The remainder of our stay was spent in hunting bears and although we saw lots of signs we were unsuccessful. In our 7 days' hunting we killed 5 bull elks and 4 antelopes, besides small game. I do not believe there is another place in the United States where there is anything like so much big and small game as around Jackson Hole. Anyone wishing to go there can get all the information he wants by writing any of the guides who advertise in RECREATION. I met several of them and they are all good men.

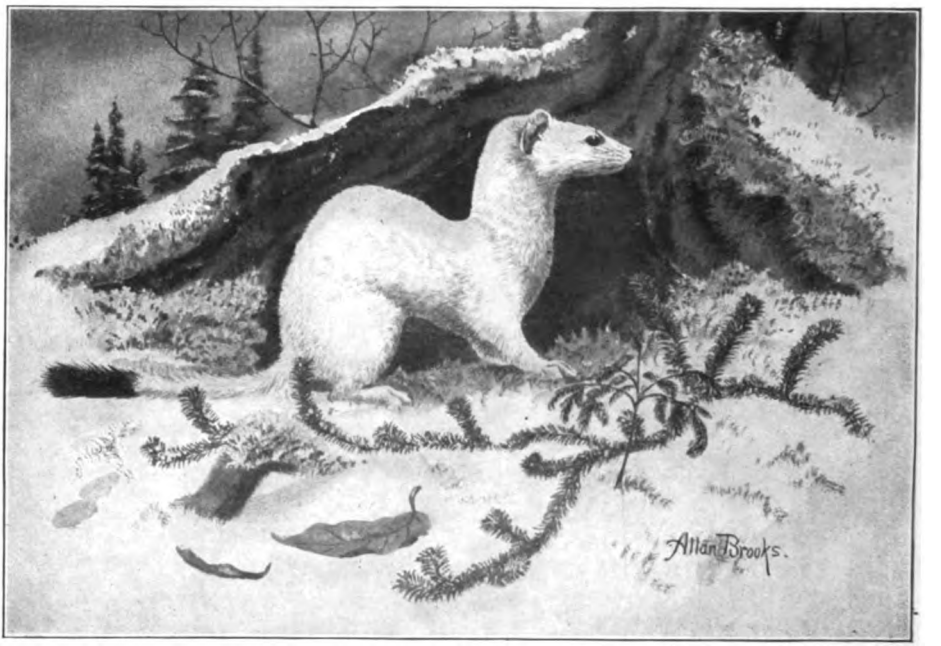
RICHARDSON'S WEASEL.

ALLAN BROOKS.

This weasel is best described as a large edition of Bonaparte's weasel, the common small weasel of the Northern States and Canada. Richardson's weasel has a more Northerly range than that species, replacing it throughout the Northern Territories and Northern British Columbia wherever suitable conditions occur. From Bonaparte's weasel (*P. cicognani*) it can be told by its larger size, proportionately longer tail, and the stronger suffusion of the yellow tone of the lower surface in summer pelage. From all forms of the long tailed weasel (*P. longicaudus*) the smaller size and much shorter tail are easy distinctions. The color of the lower surfaces in summer is also different, being pale greenish yellow in *richardsoni* and warm saffron yellow in *longicaudus*. Roughly speaking, any medium sized weasel found in wooded localities North of latitude 54 degrees, may be safely classed as Richardson's weasel.

In habits Richardson's weasel does not differ from others of this family, but seems to be of a fearless disposition. I have brought one to eat out of my hand within 3 hours of making its acquaintance, and this without confining it in any way. This was a female, and later she became a great nuisance. She generally showed up a little before midday and left about 3 o'clock to continue her rounds. If I happened to be skinning birds she became greatly excited, and would rush in and try to drag the body from my fingers. A male which used to visit my cabin in the early morning never became so tame. He was a fine specimen of his kind and amazingly strong. He could drag a grouse several times his own weight a long distance over the snow.

When carrying a small object in the mouth weasels rush along at full speed, with the tail erected straight up over the back. The illustration is from a sketch from liife.



RICHARDSON S WEASEL. *PUTORIUS RICHARDSONI.*

Hymn of the skyscraper: Nearer, My God, to Thee.—Exchange.

A DEAD SHOT.

DAVID BRUCE.

An article in RECREATION entitled "The Albino Deer," reminded me of an odd experience I had in Colorado in '90.

I had spent 10 days at the ranch of a thrifty Scotchman in the beautiful valley of the Animas. It was the beginning of October and unusually warm for the time of year. I was collecting specimens in every department of natural history, and thoroughly enjoyed myself in every way.

One day a boy brought me the following note:

"Dr. purfeser, there is a wite dear on my ranch an i wud lik you to cum an shute it, i cud git a hundred dols fer it.

"Yours respect., L. Bailey."

Bailey's was 7 miles distant over a rough road. My landlord easily persuaded me to wait a few days as he was soon going that way and I could ride with him. My friend was a reckless driver and as most of our route lay between a deep creek on one side and a high, precipitous mountain on the other, over a road thickly beset with rocks and boulders, I made the journey with some trepidation. But the Scot managed the brake admirably, and we reached Bailey's without mishap. Bailey was away looking for a strayed pony. He was noted for his careless ways, half his time being spent in searching for a lost horse or cow. After a chat with his mother, and a bit of lunch, I rambled around the ranch an hour or so. All at once I heard a yell:

"Mister! mister! stop!"

On turning I saw a small boy on a large white mule. The lad exclaimed excitedly:

"Say, mister, do you want to shoot a bear?"

I assured him that life had for me no better charm than bear shooting.

"I can show you where you can shoot one quicker 'n a wink," he said. "I just rode past one bigger 'n a steer, an' he was sound asleep, too."

I had met bears many times; generally I was armed only with a butterfly net. Once, in running, I actually fell over a bear cub. Another time I met an exceedingly well behaved half grown bear in a berry patch. I then had a 16 gauge gun loaded with No. 10's, but as the bear "said nothin' to me, I said nothin' to he."

I carefully took my bearings from the lad's direction. He would have accompanied me, but the mule would not. I shall not describe how carefully I approached the whereabouts of my expected game. I at last thought I could make out the bear, so I worked around to a piece of rough rock that rose gradually from the mesa to about 20 feet high and I was then but a few rods from bruin. The watchful mountain marmots whistled loudly from the rocks, and I wondered why the bear did not take the hint, as this signal is generally headed by all wild animals. When I peered over the rock into the gulch I was startled to find myself so near the object of my search. Within 60 feet lay a large black object evidently just waking up, for I saw a movement behind the low cottonwood bush that concealed the head.

I took careful aim and fired, but was hardly prepared for the result. Up flew at least a score of ravens and about 50 magpies, but my bear stirred not. My rifle was ready, but it was not needed again. I knew in a moment what was the matter, and went fearlessly down the rocks into the hollow. I wanted no further explanation; the air was full of it. My bear was too dead to skin. The unfortunate animal had been dead several days. He was swollen out of all proportion and stank aloud.

I went back to the ranch tired and disappointed. Bailey and I spent 2 days unsuccessfully hunting the white deer. After I returned to Denver I heard it had been killed by a guide and sold to an Eastern tourist.

She—I never saw a married couple who got on so well together as Mr. and Mrs. Rigby.

He—Humph! I know! Each of them does exactly as she likes.—Brooklyn Life.

A CURIOUS OWL.

C. E. HUTCHINSON.

Me an' Jim Oliver was goin' 'long, one time, when we seen one of these 'ere burrowin' owls. I hadn't never seen none before but Jim he knowed what it was an', soon as he seen it, he sez to me, "See that 'ere bird settin' on the ground?" and I sez, "Yes."

"Well, that ere's the curiousest kind of bird there is. You kin walk clear 'round 'im in a circle and he'll foller yer with his eyes jest like his head was on a pivit, an' it'll jest go clean around."

Well, I laughed, but Jim sez, "jest you try it wonst." So I started out an' went clean 'round the thing, far enough 'way from 'im so he wouldn't scare an' fly, an' I'll be jiggerd if he didn't do jest as Jim said. Jim, he's the jokiest kind of a feller an' when I got 'round he sez, "keep on goin' 'round an' after a while his neck'll git wrung and he'll jist fall over dead, sure 'nough."

So I started out an' went 'round 9 times in the hot sun while Jim set under a gum tree, in the shade, and laughed. After I'd went 'round more times, putty nigh fallin' down all the time through keepin' my eyes on the blamed owl, so's to see if his head kept goin' the right way. I got plumb mad and I sez to Jim, "I'm jist goin' to stay with 'im if it takes all summer."

After I'd went 'round a lot of times, Jim says, "Them owls is got the rubberest neck you ever seen," and I sez, "That's no lie, Jim; but I'll wind his durn neck so tight that he'll strangle 'fore I get done."

I kep' on walking 'round, settin' down as of'en as I got dizzy. Bimeby the corral boss come along an' sez he, "Hi! the old man's onto you fellers foolin' away time over here, an' he's goin' to fire you."

So we got out of there plenty swift and then Jim says, "You dumb fool, that there owl's head don't go clean' round, nohow; it only goes part way an' then he turns it back again, so quick you can't see it go."

Mebby I wasn't mad when Jim told me that, 'til I seen it was only a joke he played on me.

They say them owls is all over out West, but this here one I'm tellin' on, was on a ranch close to Los Angeles, when we wasted good time over it.

I guess we was goin' to get fired, sure 'nough, but Jim told the old man the joke an' he laughed an' didn't say nothin'.

AMATEUR PHOTO BY MRS. W. H. MEYER.

SCENTING AN ENEMY.
Made with Korona Camera.

FOX TRAPPING.

J. A. NEWTON.

Formerly my home was near a succession of sand bluffs which contained innumerable fox dens, in which the young were reared, and which served, also, as secure retreats in winter. Foxes were always plentiful, and occasionally one was killed in front of hounds, but no one in the neighborhood could trap them except Daddy Jenks. He was a genial old soul, however, and wanted no monopoly. When he learned of my ambition to catch at least one fox, he offered to teach me how.

The first thing he did was to grease his traps well, after which he held them a few minutes in the smoke of burning corncobs.

"I grease 'em so they'll spring easy," said Daddy, "an' smoke 'em to kill the smell of rust; a rusty trap won't ketch a fox in a dog's age. 'Nuther thing, you don't want to handle 'em with bare hands after the smokin', so you see I handle 'em an' set 'em with these 'ere gloves."

A grain bag was filled with chaff, a quantity of lard scraps and smoked meat rinds were taken for bait, and Daddy led the way to a main runway on the bluff. It was toward the last of November and there was yet no snow. "If there was snow," said the old man, "it would make easier trappin'. On bare ground traps must be set in beds. Some use ashes, but they freeze easy if a little wet comes; I allers use chaff."

Jenks had placed pieces of rails during the summer at convenient points on the runways where he intended making sets when the time came. I asked him why he put them there so long in advance of the trapping season.

"Theye're to hitch the trap to," he replied; "and I put 'em here early so the foxes'll get used to seein' 'em and think nothin' of it when I come to set. Traps don't want to be hitched solid or the critters'll pull out or eat a foot off an' git away."

I noticed that a quantity of chaff was already in each place where he intended setting. Daddy said: "Foxes must be baited a while before settin' the traps. I put these beds here over a week ago. I've got 'em to comin' and takin' the bait; now I'll s'prise 'em by puttin' in the traps."

The bait had been nosed out and eaten from most of the beds, and a new supply was scattered. Then a trap was bedded so as to be level with the surface, the chain was stapled to the clog, and all was covered lightly with new, dry chaff. "It don't answer to tend fox traps more'n once a week," said Daddy, "so as to let your signs git old. An' don't never go closer'n 4 rods or jest nigh enough to see if the trap's sprung." A light fall of snow the following night obliterated our tracks, hid the beds and brought about the best possible condition for immediate success.

After the second night we tended the traps. Tracks were numerous all over the hills, and 2 traps were gone with their clogs. They had been dragged down the hill to where a fence obstructed the way. There we found our foxes, both young but nearly full grown. The traps were carefully replaced but that time were covered lightly with snow to avoid too much of a contrast. As Jenks put it: "You want to aim to have things look natural. Now we'll take these foxes purty near home to skin 'em, 'cause if we peeled 'em here and left 'em layin', foxes would make themselves scarce in this neighborhood for a long time."

The field was large enough for us both, and I determined to test my own ability. I knew where lay the bodies of a horse and a sheep. When winter came and the foxes were reduced to eating carrion, I set traps near the carcasses, covering them with snow. I waited several days until snow had drifted over my tracks before visiting the traps. I found foxes had been circling the horse; but I had fastened the trap to a brush, and it looked so suspicious to them that they ventured no nearer than 5 or 6 yards. All I succeeded in catching there during the winter was 2 skunks and a neighbor's dog. At the sheep, success crowned my efforts. There the clog was a chunk and had been hidden in a snow drift. I followed a dim trail across the field to a large drift in which I found my fox, half buried and frozen hard. Frequent light snows came to hide any signs I made and by February I had caught 3 more foxes in the same trap.

I was elated and began to think fox trapping was not so difficult after all; but I had a lesson yet to learn. I had been catching the young and unsophisticated and had not been called on to frustrate the cunning of an old dog fox. The next fall I placed some beds and baited them for a week with lard scraps. A fox of the largest size had used the region for years, escaping all traps and hunters. His track could be distinguished from those of his fellows by its unusual size. As soon as I set the traps he promptly scraped them out of their beds, turned them over, ate up the bait and went his way. He played me the same trick several nights, seeming not

to fear my recent attempts. Of course if the traps had been handled without gloves, his recklessness would have vanished at once. I tried setting 2 and 3 traps in a bed, hoping he would accidentally step in one. But he knew where they lay better than I did, and all were turned over and sprung.

I was at length compelled to seek advice from Daddy Jenks. "I know a trick fer sech old chaps as that," he said; I'll go with you and see about it." After setting the trap so it would spring rather hard, he placed it carefully in its bed, but bottom side up. I marveled greatly at this procedure, but the old man did not explain it. The following morning we were both anxious to know the result and, to my surprise, found we had caught the wise old fox. He had turned the trap over as usual, which brought it right side up, but as nothing came in contact with the pan it remained unsprung. No doubt thinking danger had been removed, as on previous occasions, the fox had met his fate while recklessly treading around in devouring the bait. I never saw a more crestfallen animal; he cowered as we came up, looking as if he wished the earth might open and swallow him.

Practice makes perfect and I long ago discovered that many more foxes may be taken by using a proper scent at the place of baiting. In late fall and during the first half of winter the scent to be used is as follows: Tincture of assafœtida, one ounce; oil of anise, one ounce; oil of rosemary, one dram: mix. A few drops should be sprinkled on and within 5 or 6 feet of the bait, which should be lard scraps, fried meat scraps, and smoked meat rinds fried. The bait is never placed on the trap but around it, scattered in the bed of chaff. The bed should cover an area of 4 feet.

Bait should be scattered over as much space when trapping in snow as when baiting in beds; the trapper's expectations being based on the probability of the fox stepping in the trap while devouring the bait or sniffing at the alluring scent. It is always advisable to bait a few nights before setting the trap, especially in the first half of winter.

A CLEVER PUPPY.

Some time ago you published in your magazine several pictures of an untrained pointer puppy, showing his various points.

These seemed to indicate a well bred dog and one that would make a good hunter. I think these pictures which I enclose will stand comparison as showing a perfectly natural and lifelike position. These photographs were taken at the edge of the woods, and show the dog's listening and watchful attitude, occasioned by a rustling noise just ahead of him in the bushes and ready to hear the word to go ahead. At the time these snap shots were made he was 14 months old and had never had any training. On this occasion he was taken out to see if his breeding would show up the good points always looked for in this breed of dogs.

AMATEUR PHOTOS BY H. C. CHASE.

His qualities for a rapid worker were noticeable, for he scented quickly and was a stayer until he flushed his game.

C. C. Chase, Concord, N. H.

ELEGY ON A COUNTRY FISH HOG.

(With apologies to everybody.)

A. L. VERMILYA.

The curfew tolls the knell of parting day,
The setter pup hunts softly for a flea,
The fish hog homeward plods his lazy way,
And leaves not e'en a single fish for me.

Now fades the glimmering landscape on the sight,
As on the ground the dirty fish hog rolls;
"I got 'em all," he says, "how they did bite!
I fished all day with 27 'poles'."

He had 400 little speckled trout;
He had a fishing outfit kids would scorn;
He had a sodden face and piggish snout;
Oh, why was such a creature ever born?

He was a village loafer; just a bum;
Too lazy almost was the brute to talk;
His clothing smelt of grease; his breath of rum,
You'd know he was a hog, just by his walk.

But as he giggling lay upon the ground,
A fierce pain smote him in the middle part;
'Mong all his gearing quick it spread around
And stilled the beating of his selfish heart.

Too much poor tipple had he taken in,
So much at last it quenched his beery breath.
Now he was dead, no more he'd leer and grin—
Sometimes thou doest mighty well, O! Death!

THE EPITAPH (on a shingle).

Here rests his head upon the lap of earth,
A hog to decency and shame unknown;
He'd been a cussed nuisance from his birth,
And collywobbles marked him for its own.

Above him stands no chiseled granite gray,
They didn't even bury him, they tell;
Just where his soul has gone is hard to say
Though one might almost bet that it's in—well,

It surely isn't in that blest abode
To which the souls of decent sportsmen go;
Perhaps it hikes along the dreary road
That leads down to the other place, below.

AMATEUR PHOTO BY H. K. JOY.

YOUNG BURROWING OWL.

Highly commended in RECREATION'S 6th Annual Photo Competition.
Made with a Premo Camera.

A UNIQUE SOUVENIR.

WILLIAM BATTLE.

It was in the summer of '83, and I was spending a month's vacation in North Carolina with my uncle. Early one morning I started, with rod and reel, to find a creek which my uncle assured me would afford good fishing. As I trudged along I heard the rumbling of a distant wagon. It drew nearer and finally a heavy farm wagon drove noisily up behind me. "Halloo!" shouted the driver, drawing up. "We are going the same way; you might as well ride."

"Going fishing, I guess?" he remarked, as I climbed up beside him. In answer I told him where I was going. At that he laughed. 'Why, I thought everybodv knew that no fish could be caught in Diamond creek. I spent a day there last summer."

"Did you not catch anything?" I asked.

"Never even got a bite," he said; "but Jim Peterson was along with me that day, and I never seen so much fun out of a mortal in all my life."

The old man took a huge bite from a long plug of West Tennessee tobacco, readjusted his coonskin cap and crossed his legs comfortably.

"It was about 4 in the evening," he went on; "Jim Peterson and me had been fishing all up and down the creek, but had not even had a bite. We wound in our lines and started up stream to look for better luck. We came on a place where the water was clear as crystal and the current so swift that, assisted by a sharp turn of the stream, it would sometimes whirl sticks clear up on the bank.

"While we were wondering if we should go any farther up stream or not a 12-inch bass went ashore at the turn. We made a grab for him, but he was back in the creek before either of us could reach him.

"We stopped right there. Jim cast his line in the middle of the bend and I went a few yards up stream to a deeper place. After about 20 minutes of silent fishing I turned toward my companion to see what he was doing.

"There was an old stump at the water's edge. Jim was perched up on it with the heel of one boot propped up on the toe of the other and was fast asleep. I was looking around for something to throw at him when I heard a splashing at the bend and thought there was another fish ashore. No fish was in sight, but the current had forced an eel out of the water and sent it whirling into Jim's open shirt bosom, though I was not aware of the fact at that time. The cold, wet thud awakened the sleeper and his eye fell on the snake-like form of that eel doing the St. Vitus dance inside his shirt front.

"With a yell he turned a complete somersault backward over the stump and bleated like a sheep in a hail storm. He pawed the earth like a mad bull with a red pillowslip over its head, and broke down more saplings than you could pile on a hayrack. He kicked one of his boots off and ripped his vest in halves. The boot whizzed across the creek and caught on the end of a limb half way up a big high sycamore tree, and directly over the deepest place in the creek. Just about that time the eel slipped out of Jim's trouser leg.

"Peterson finally recovered from his delirium, and his first thought was of the missing boot. The look he cast up in that sycamore tree expressed great surprise and deep humiliation. The only way to get it was to wade the creek and climb the tree. When he had crossed and was half way up the tree I called his attention to a large hole in the very limb on which the boot was hanging; but he was too eager to recover his property to stop and investigate the hole.

"I stood watching and presently saw, to my amazement and horror, about half a million yellow jackets fairly boiling out of that hole in the tree. At first they did not locate Jim, nor did he see them. They whirled about the tree looking for the disturber, and so many crossed to my side I had to leave my post.

"As I started I heard a great splashing of water and knew my friend had been forced to drop from the limb. In another minute he came tearing through the woods drawing behind him a string of yellow jackets 50 yards long. There was a large frame barn at the edge of the woods, and for that we headed. We ran into the barn and through the stalls trying to lose those yellow devils. They followed us up in the hay mow and we swung down to the ground by a rope from the mow window. Just outside the barnyard we stopped to get our breath. From the barn came the bellowing of cattle and the squealing of shoats. Then a corner of the building burst like a torpedo and out came horses, cows, and hogs, all abreast. We resumed our retreat, leaving the animals to take care of themselves and the farmer to build a new barn.

"Somewhere in the drifts of Diamond creek there is an old white hat, but high in a sycamore hangs the real souvenir of that trip—an old, run-down, split-leather boot."

THE PASSING OF THE SALMON.

HARRY LEONARD.

It is an old story in the West; a story of bloodshed, a story of civilization and of murder. For, to our wild creatures, one means the other. Everyone knows the fate of the buffalo; the antelope are fast following. All our big game is taking that last journey from which there is no return.

Close behind them are following the game fishes; notably the salmon, which, a few years ago, were so thick one could almost cross a river walking on them.

When summer comes, the salmon comes; not in small schools or shoals, but by millions. They cruise along their favorite route, to their river homes. From early morning until late at night, great, glistening fish leap and fall. The bays and sounds are a dazzle of churning silver.

Suddenly their passage is obstructed. They turn aside at this obstruction; it may be a net or perhaps a wire screen. In either case, it is death. They follow that wire leader and slowly but surely go into the heart, then into the deadly traps, then to the spiller. It is all so easy, all so simple. When they realize they are caught, they dash wildly about at first. Then later, more deliberately, they seek that fatal opening. It is there, but they can not find it. Around and around they swim; they pass and repass the outlet. But not once do they see it; or seeing do they escape.

For hours, or perhaps days they swim about that fatal barrier. Ever more weary, ever growing in numbers, until in fatal mercy, a great net closes about them. A swing in air; a blinding flash of light, and soon the salmon dies beneath tons of suffering brethren.

Such is its welcome home. Above water, in scows and tow-boats, are perspiring men, wet and bloody, throwing, hauling and heaving. One crew relieves another; there is no stopping. From morning until evening it is a struggle to kill. The fish run in as fast as they are bailed out. Then darkness comes and a forced rest until morning. When morning dawns again the killing begins.

Sometimes a great black and yellow body, 12 feet long, leaps in air. The water foams. Crash! thud! The water grows bloody. Another well directed blow and all is over. Then into the scow is dragged a great sturgeon. Occasionally a seal is captured and the scene is reacted.

Smelt, herring, trout and many other fish that stray into the great traps escape through the large mesh on which the law insists. But there is no escape for the lordly chinook, the grand tyee, the handsome silver, or the ugly humpback salmon; all are served alike.

Meanwhile the long tailed heathen in the cannery are cutting and cleaning all day and all night. They must make the most of this silver harvest. Slowly but surely they drop behind. More men are set to work, but no use; the fish are coming too fast. Then comes the dread report, "fish spoiled;" and great tugs face seaward, towing scow loads of fish to be dumped overboard.

Still the traps work overtime. Then comes the sickening part of it. The dead fish float ashore to mingle with the offal of the canneries and a stench arises that nearly drives one mad. The excuse for it, if one is sought, is that the fish will die anyway.

So the killing continues, each year getting worse; greater traps, greater capital and greater contrivances.

Our government is doing all it can to propagate food fishes and to restock our waters; but how long will it be before our salmon are practically exterminated?

"I'm so tired this morning," said the first moth.

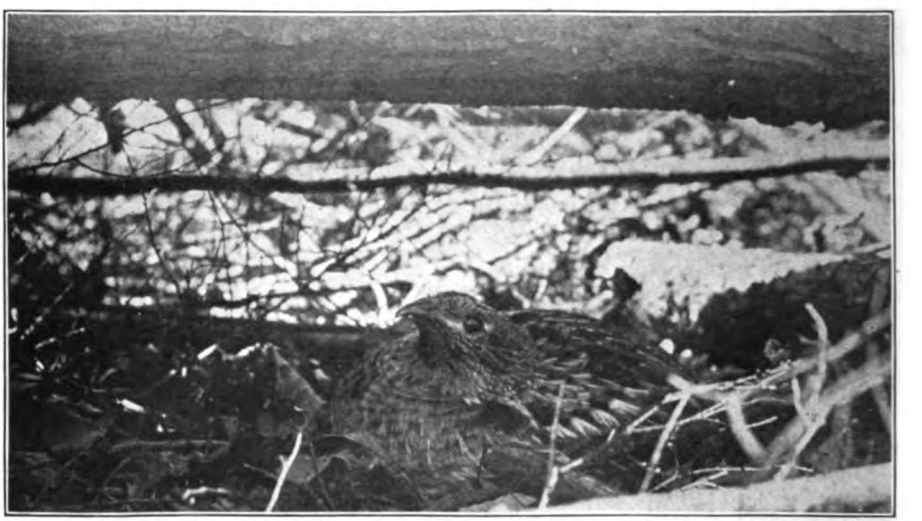
"Up late last night?" asked the second.

"Yes," replied the first, "I was at a camphor ball."—St. Paul Globe.

A CLOSE CALL.

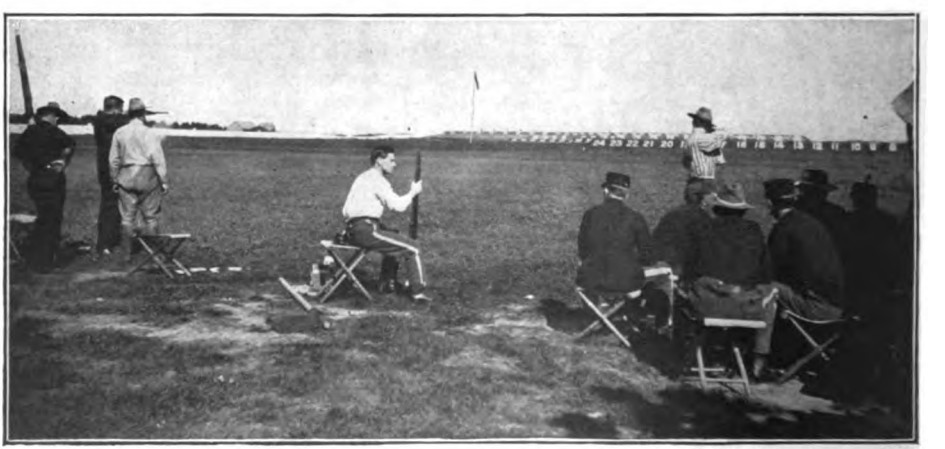
I send you a photograph which I consider remarkable from the fact that the negative was made with the camera within 2 feet of the grouse. The camera was a Premo. The focusing was done on the bird herself. She had evidently just hatched her eggs, as the shells were in the nest in front of her. Two or 3 eggs show at the extreme left of the picture in the foreground. Woodchoppers have been at work around this nest for some weeks past and have been able to approach very near the grouse on several occasions.

E. F. Worcester, Hudson, Mass.



COPYRIGHT APPLIED FOR BY E. F. WORCESTER.

RUFFED GROUSE ON NEST.



AMATEUR PHOTO BY F. L. WILCOX.

SHOOTING ON THE 200 AND 800 YARD RANGES AT SEA GIRT, N. J., DURING THE TOURNAMENT OF THE NATIONAL AND N. J. STATE RIFLE ASSOCIATION.

Made with Korona Camera. Printed on Carbon Velox.

A BEAR HUNT.

OLD SILVERTIP.

We had pitched our tent on a small stream known as the Mee-tee-tsie. We were in the Mole hills for the purpose of getting a bear, and we meant to have one if possible. My partner had just bought a 45-70-405 Winchester repeater, and on the way to our camping ground he had urged me to try his rifle on the first bear we saw. I have no faith in a repeater and do not like to use a strange rifle on game. When a man tackles one of these Western bears he takes his life in his hand. They are not like their Eastern brothers, that one can kill with a shot gun. God only knows what possessed my pard to take his gun apart that night, or why I used it the next day. The next morning, the first in camp, I went down to the creek for water and saw a bear trail. I rushed to the tent, told pard how it happened and where the creek and buckets could be found; then took his gun and started. The trail was so fresh that I expected to kill the bear and get back in time for breakfast. I followed that trail 5 miles. Then I found him. It was not the kind of bear I wanted. It was a baldface, or roachmane, and they can put up a better fight that any other kind in North America. They are always on the "prod." I had no faith in the gun I carried and I had found what I hadn't lost. The brute had either seen, heard or winded me, for he was headed my way. His hair was uncombed, and standing on end. His eyes flashed fire, and why he passed our tent without giving us a call, I can never tell. About 10 feet from me was a fine tree to play "Jack and the bean-stalk" on. Thank God, these animals can't climb. We were about 75 yards apart. "Now I'll put a bullet between his eyes," I said to myself. Where my bullet went, I never knew. Then something sounded like a steam-whistle let loose, and I saw a red cave fringed with black coming my way. To say I pumped that gun for another cartridge would be putting it mildly; and it stuck! One look at that mammoth cave, and one at the tree. I took the tree. The game changed; hunter up the tree; bear and gun on ground. There I was, and there I staid, with the bear below. The day came to an end. The part of me that I use to sit on grew sore, and every move I made brought a growl from below. One good thing, no human being was there to see the show, but I wished one would come that way. As the sun went down behind the hill a new danger stared me in the face. If I dozed, and fell off the limb, it meant death. Then again, the air was getting cold, and I was chilly. Twice during the night I could see the bear's eyes shining below me, and I knew he was still there. How often I climbed up and down that tree and around it to keep myself from going to sleep or getting cold, I have no idea. I tried to lash myself to the tree with my cartridge belt, but it was too short. When daylight came, the bear had gone. I never left the tree until it was good and light. My first move was to get that —— rifle. There is always the last straw to a load, and I found it. The blamed thing worked all right. Had I been sure I should not need it before getting to camp I should have broken it. However, I pumped a cartridge into the barrel and started back. I met my partner on his way out to look for me. After I had expressed myself to my heart's content, he looked at me serenely and said:

"Joe, I forgot to put in the pin that holds the finger lever in its place with the breechbolt."

Ye gods! All night up a tree for the want of a pin!

Brakeman—Now, then, miss, get in quickly, please. The train is about to start.

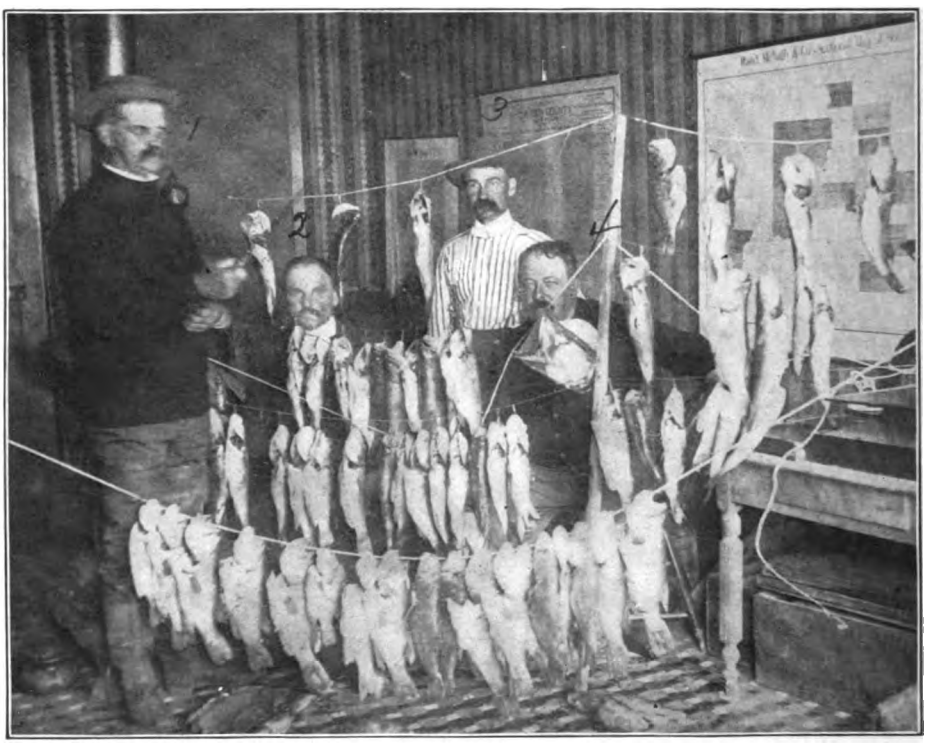
Young Lady—But I want to give my sister a kiss.

Brakeman—Get in! Get in! I'll attend to that for you.—Exchange.

SOME SPECIMENS OF THE SOUTH DAKOTA BREED.

The many readers of your valuable magazine in this part of the country enjoy much the juicy roasts served by you, of which the game hog is the *piece de resistance.* Particularly are we interested in the fish laws and the preservation of fish, we having so few streams and lakes in which any fish are found.

I enclose you a clipping taken from our local paper; also a photograph taken of the remnants of this catch, the balance of the haul having spoiled.



No. 1 is A. E. Hitchcock, a prominent lawyer of Mitchell, candidate for Attorney General of the State in 1900; No. 2 is W. E. Crane, a physician and surgeon of the C. M. & St. P. R. R. in South Dakota; No. 3 is F. H. Winson, ex-State Attorney of Davison county; No. 4 is R. D. Prescott, of Mitchell.

I send these as an addition to your pen. Your good work in this line is appreciated from Maine to California.

Subscriber, Mitchell, S. Dak.

The clipping referred to is as follows:

Dr. Crane, R. D. Prescott, A. E. Hitchcock and F. H. Winsor returned Monday from a 2 weeks' fishing trip at Big Stone lake. They had a pleasant time and tell some big stories of their luck with rod and reel. Mr. Prescott caught a 26-pound muskalonge and brought its head home as a proof. The party brought home 360 bass. Monday afternoon and the fish were hung up in Mr. Prescott's office and a photographer took a picture of the gentlemen and the fish.—Mitchell (S. D.) Gazette.

The reader will have noticed that the local editor says the photographer "took a picture of the gentlemen and the fish." He should have said of the swine and the fish. There can be no mistake as to the character of these men when one looks at their faces. Every feature of each of these men indicates that they would never quit shooting or fishing as long as they could kill anything more. Such men are a disgrace to any community and I am safe in saying these vile wretches will be shunned by their neighbors from now on.—EDITOR.

La Montt—Here is a periodical devoted to air navigation.

La Moyne—Must be a fly-paper.—Philadelphia Record.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman.

THE SITUATION IN CALIFORNIA.

I am sure you will confer a favor on many of your readers, as well as do a good turn to game protection in California, by publishing the enclosed clipping from the Stockton (Cal.) *Independent*. The writer of the article, Mr. Lyman Belding, is one of the few remaining veteran ornithologists and sportsmen of California, and has traversed the country of which he writes every summer for years past. His remarks therefore possess unusual value on the question of game protection.

C. Barlow, Santa Clara, Cal.

Game, with a few exceptions, is decidedly rare in California and it is not likely to be nearly so abundant in the future as it has been in the past. Sportsmen are becoming more numerous each year, from Alaska to San Diego, and a corresponding decrease in game is the inevitable result. The occupation of the market hunter is about gone.

The valley quails will probable increase the first favorable year. The 3 preceding winters have been comparatively dry and therefore unfavorable. Few young valley quails mature after a dry winter, owing to a scarcity of water on the breeding grounds. I first noticed this in several interior and coast countries in the fall of 1871, and later observations have confirmed it. Only 5 or 6 years ago quails were as numerous in many parts of Calaveras county in the first of the shooting season as they had been during more than 40 years; but when the season closed market hunters had left so few living birds neither sportsman nor market hunter has found pleasure or profit in hunting them ever since that time. Few valley quails have been killed out of season in the central valley and foothill counties. Formerly gun clubs looked after their protection and helped largely to create a sentiment in favor of the observance of the game laws. Then the farmer and town or village sportsman were friends and the sportsman felt that he lived in a delightful, free country; but now it is different.

The public game on most of the marshes is monopolized by a few persons and on the uplands the most of it has been appropriated by selfish landowners. The public trout is going the same way. Even the distant, world-renowned McCloud river is now mostly controlled by a few individuals, with all the fine trout in it, some of which were planted there at public expense, but which the public may not now angle for.

Perhaps the State Sportsmen's Convention will devise some way by which more Californians will have an interest in game. As it is now, few of them have any, and without a radical change the many should not be taxed to protect game for the benefit of the few. There are no more people to the square mile in the chaparral belt, where most of the valley quails are, and no more stock on the ranges than 30 years ago, when a sportsman was free to shoot almost anywhere. In the high mountains what little protection game has is for the benefit of the wrong persons, to the detriment and annoyance of the right ones, as I will hereafter demonstrate.

Ducks which are on our marshes in the winter breed in Alaska, British Columbia, Washington, Oregon and Nevada, beyond our protection. They have human enemies in nearly every place where they stay or go and are likely to become scarcer.

Deer are scarce in the Sierra Nevadas, but they would become plentiful in a few years if protected throughout their ranges. This is impossible without an army of game wardens to patrol the range. Now there are only here and there deputy wardens, or informers, at some of the summer resorts, who seldom look for information in the field or get a mile from their homes.

The game in the Coast range, particularly the most of it North of San Francisco, has little more protection than the game in the Sierras. There are 40,000 square miles of the State which have been and should be a sportsman's paradise, but most of its game has been destroyed by Indians and sheepmen, many of the latter being non-citizens, and the former natives of Nevada. Thousands of campers visit the mountains every summer, but they seldom get much game, though they seldom respect the game law.

Some years ago, after a severe, early snow storm had caught and killed many adult deer in the upper Sierras, deer killing was prohibited for 2 years; but at the end of that time there were no more deer in the Sierras than at the commencement of the closed period, although few or no young deer had been caught by the storm, as they, like the mountain quails, had gone down the West slope

out of reach of it. The only result was that Indians and sheepmen had almost a monopoly of deer killing during the prohibitory period. I doubt if there were any more deer in the Coast range at the end than at the beginning of the 2 years. A friend who stopped 2 weeks at a sheep camp in Humboldt county, told me they had venison during all the 2 weeks, and as many as 6 deer at one time were hanging in the camp; and that during the prohibited period.

When I began, in 1857, to hunt in Calaveras county, deer were as rare as they are now, there having been a great demand for venison in early mining times. They soon became plentiful when beef became cheap, and were really abundant in 1885, when about 100 Washoe Indians for the first time wintered in Calaveras and soon nearly exterminated the deer in that county and a part of Tuolumne. A Mr. Williams told me he bought 1,200 deer skins from those Indians that winter, and they were said to have sold as many more to other traders. They came over the next winter and killed the most of the remaining deer. A supervisor of Calaveras, Mr. Stephens, told me a year or 2 afterward that they were saving their deer for the Washoe Indians and when there were about 3 more these Indians would come for them. From 1857 to 1885 deer increased in Calaveras county, though it was considered perfectly proper to kill a deer whenever meat was wanted during that time.

Formerly the close season extended to October 1st, by which time there was little game in the mountains above 5,000 feet altitude and visitors from the valleys and coast had gone to their homes; consequently during September there was a universal disregard of the game law, and there will not be much regard for it in the mountains until Indians and stockmen are compelled to observe it. It will be difficult to make them do so, as they roam over every part of the mountains, not one-hundredth part of which is visited by anyone else excepting a few energetic sportsmen and explorers. A yearling deer is worth half a dozen old ones, as it is a luxury, but an adult blacktailed deer, our species, seldom or never is. However, it is dangerous to shoot a yearling deer, because of the difficulty in determining the sex, especially if running in thickets; and a conscientious hunter is liable to violate the game law unwittingly. Unquestionably the game law in the Sierras does not protect game; it simply annoys the person whom it should not affect.

Grouse are becoming scarcer in the Sierras each year, for which sheepmen and sheep are mostly responsible. But for them grouse would soon become abundant.

Mountain quails are not decreasing, except perhaps slightly near summer resorts, and along routes of travel, as they are seldom molested by Indians and stockmen.

Doves are among the best friends of the farmers. They breed from May into September and during all the intervening months.

The State is greatly interested in having her young men learn to shoot, but it looks as if their opportunity to do so was becoming necessarily difficult.

Lyman Belding.

SHALL WE MAKE PETS OF WILD BIRDS AND ANIMALS?

Dr. T. S. Palmer,
Agricultural Department, Washington, D. C.

I have had some correspondence with Mr. Schmid, a game dealer in your city, with regard to the purchase of certain live birds and animals and in one letter he quotes you.

I think it would be well for the League and your Department to get together on some general policy regarding this matter. The Lacey law does not attempt to regulate the shipment of live birds or animals within the States or from one State to another. Its provisions as to the inter-State traffic are all with relation to dead birds or animals.

Leaving this question out of discussion at present, I should be glad if we could adopt a policy of encouraging a rational system of keeping birds and animals in captivity. It is true the privilege would be abused. Such creatures would in many cases be kept in small cages and improperly cared for. Many other people, however, would take proper care of them, would give them plenty of room, good food and kind treatment. In such cases a bird or a squirrel, for instance, is better off in domestication than it would be in its natural state, for it has no trouble in getting its food, nor is it liable to be killed by hunters or by its natural enemies. Then, the more people see and know of birds and animals the better they like them and the less likely they are to pursue and kill them when found at large.

Take, for instance, the albino squirrel I have in my office. Hundreds of people who have seen him here have said they would never wish to kill another squirrel in the woods. We have a mockingbird at our country club, and people sit there and watch him and listen to him by the hour. Then they say: "How could anyone be cruel enough to kill such a beautiful and inter-

esting creature when found at large?" We have some flying squirrels there that are a constant source of interest and amusement and they are making converts every day to the cause of game protection. I am planning to propagate birds, squirrels and other wild creatures in large cages enclosing trees, and I, of course, would not deny others the privilege we claim for ourselves. Our Zoological Garden and parks are great educators on these lines, and if a society is allowed to entrap and confine hundreds or thousands of birds and animals, why should not an individual be allowed to keep one or 2 of each?

Kindly think this matter over and let me have your views.

G. O. Shields.

DOCTOR PALMER'S REPLY.

There is not much difference of opinion between us on the subject of keeping live birds and animals in captivity. Although dealers blame the Lacey Act because their sales have been curtailed, the real source of their trouble lies in the enforcement of local laws. The export of quails from the Indian Territory has been curtailed by enforcing the Territorial law (R. S. 2137). Action against bird dealers in Chicago was taken under the Illinois State law, and dealers in the District of Columbia are prevented from selling certain cage birds by a provision in the District law to the effect that no person shall catch, expose for sale, or have in possession, living or dead, any wild bird except game birds and certain species mentioned by name.

Personally, I see no objection to keeping a squirrel or a mockingbird as a pet and I do not think our local law was intended to prevent that sort of thing where the privilege is not abused. As far as I am aware no attempt has been made to interfere with pets in the hands of private individuals, either in the District or in New Jersey, where the game laws are strictly enforced.

I agree with you entirely that certain birds in captivity are valuable for purposes of education and for arousing public interest in game protection. Much more might be accomplished in the way of domestication than has yet been done. Wood ducks might be bred in captivity, and experiments made in domesticating sage grouse, the beautiful little Massena partridge of the Southwest, some of the wild turkeys, and even in raising the prairie chicken in captivity. The laws of every State should contain a provision for obtaining birds for propagation; but this matter should be under strict supervision, and sale and shipment allowed only under permit. There should be no objection to catching a few birds for domestication, if done by properly authorized persons, but the time has passed when every bird catcher can be allowed to trap, ship, and sell *ad libitum*. The abuses which have grown up with the live bird trade in the United States are not generally recognized. I have known quails ostensibly shipped for propagation to be sold to restaurants or killed for market, on arrival at destination. Such large numbers of bright colored birds are trapped near certain cities that some species have been almost exterminated in those localities. The District of Columbia has not yet recovered from the excessive trapping of cardinals which occurred a few years ago. Cage birds are caught not only for the local market but for shipments abroad. Last winter I saw 250 cardinals in one store in New York which were destined for South Africa. This is the kind of trade that State laws attempt to prevent.

As far as the District of Columbia is concerned, local dealers are allowed to sell squirrels from November 1 to February 1, and quails from November 1 to March 15; and while they are prevented from selling certain native species as cage birds they can sell foreign birds in any number at any time. The reason is obvious. The vicinity of the National Capital should be in the nature of a park, where native birds and animals are strictly protected. If they can be sold by local dealers it simply encourages wholesale trapping and nest robbing. The trade in live birds and game should be placed under even more stringent regulations than the trade in dead game, but ample provision should be made for propagation and domestication.

T. S. Palmer,
In charge Game Preservation.

ALASKAN GUN AND GAME NOTES.

Portland, Ore.

EDITOR RECREATION:—While in the Yukon valley we seldom saw magazines and newspapers. In Dawson it was a great treat to find RECREATION, and $1 a copy was willingly paid for it.

Since coming home, after an absence of 2 years, I find the great gun question is not yet settled, and that the gun crank is as bad as ever. On the Klondike river, from 50 to 100 miles from Dawson, quite a number of large moose were killed in '98; several of them dressed over 1,000 pounds. One hunter, with a single shot, 30-40 smokeless, with telescope sights, killed 23 moose last season. He sold the meat at 50 cents to $1 a pound.

Many hunters claim that the .30-40 is the best gun for moose, Alaskan brown bear, and grizzlies. I own a .30-30, and killed a 400 pound black bear with it, using lead point bullet. Most old hunters cling to the .45-70 black powder or U. S. Govern-

ment cartridge, claiming the heavy bullet has more killing power. One more or less truthful man said he had 2 horses shot on the Hottinqua river by a hunter who mistook them for moose. A steel-pointed bullet went through each horse, he said, but in a few days he was working the team again. I can believe that a man or a horse who could live up there one summer and stand the mosquitoes would not mind a little thing like a bullet.

The boys in Gold Run say they object to the .30-40 because it kills game so far away the meat spoils before they can get to the animal to clean it.

Speaking of game, Dr. E. O. Smith, a gentleman of veracity, who went to Dawson by way of Copper river, said mosquitoes darken the sky, and he had to throw up a stick or rock when he wanted a ray of sunlight. The mosquitoes and black gnats in summer spoil the pleasure of hunting. On the river when a current of air strikes them, they are not so bad; but woe to the hunter when he lands and walks over the moss and through the underbrush, for then they rise in clouds.

A few grouse and ptarmigan are found near Dawson. We had heard that ducks and geese were plentiful, but did not see many during the year spent there.

In June we left Dawson for St. Michael in an open boat. The distance is about 1800 miles and the trip is usually made in 21 days. We were 32 days on the way, through not knowing the route. The Yukon river in places is 30 to 40 miles wide. When one leaves the main current, which is hard to follow on account of the numerous islands, it may take 8 or 10 days to find one's way out of the tangle again into the main stream. On the upper part of the Yukon the current runs 4 to 5 miles an hour, but near the sea there is hardly any current.

We did not see any animals or game along the Yukon, except the bear we killed. That was busily engaged, either fighting black gnats or digging roots, on the bank of a side stream on which we had been lost several days. We approached within 150 yards. I shot him with a .30-30 soft point bullet. Although badly wounded he made off into the brush nearly a mile. The black gnats nearly stung us to death before we could get him out of the woods. It was several weeks before our faces were reduced to ordinary size.

The Indians get but little game and live almost entirely on dog salmon, dried without salt. They are fast dying off. The white man's food and whiskey do not agree with them. Consumption seems to carry most of them off, and we saw few old persons among them.

The flats on Northern sound, near St. Michaels, are the building ground of sandhill cranes, and the great Northern diver, or loon. While camped on the shore we could hear their weird cries all night. Sitting around the driftwood fire on the shore of the Arctic sea, we fancied we were listening to the wailing ghosts of gold seekers who had perished from a surfeit of beans and bacon. The hog may be an unclean beast, no doubt a game hog is, but what would the miner on the Yukon do without sow-belly and the rich, and nutritious army bean?

B. F. Clayton.

KILLED TOO MANY SHEEP.

I recently heard that R. T. Boyd, of El Paso, Texas, had killed 20 mountain sheep in old Mexico, and am informed the report was true. I asked him where he found the sheep. He replied as follows:

The first mountain sheep I killed was in '96. I drove about 40 miles out from the Mexican town of Ahuarnado, 90 miles South of El Paso, in a light buggy, carrying a saddle with me. When I could drive the buggy no farther I mounted a horse and hunted diligently 2 days. The finding no water I had to turn homeward; but in making for camp I found a young buck sheep about one year old, which I had the good fortune to kill. The sheep in that part of the country are in isolated peaks of lime formation and barren of all trees.

I made my second trip into those same mountains in February of this year, with Robt. Gloschear, and we brought down 2 sheep, but not finding a large one we went West about 70 miles and found several. Still we saw no large heads. There we killed 2 more sheep and captured a small one which a Mexican has been successful in raising. We have the heads mounted and they make live looking specimens.

I had another trip in March, with Mr. Townsend, of the firm of Townsend & Barber, taxidermists and naturalists. We went after some museum specimens that time and were successful. We brought down 8 sheep and 2 blacktail deer. It seems that this is a new species and is in demand at all museums. In that hunt I got my first big sheep head and I had it mounted life size. It is just finished and is an interesting and beautiful mount.

My next trip was with Mr. E. E. Bliss, of Denver, Colorado, in April. We traveled about 100 miles East of Ahuarnado and we got 2 sheep heads, the largest that have been brought out of Mexico. Mine measured 16¼ inches at base of horn.

There is no meat, domestic or wild, so good as mountain sheep steak. We saved all the meat that was killed and, excepting what we ate ourselves and gave to friends, the balance was served in the hotel.

I understand that in Colorado the sheep are high up in snow and pines, but in Mexico they are never near the pines and do not always see snow even once a year.

R. J. Boyd, El Paso, Texas.

I regret to hear that you should have killed 8 mountain sheep on one trip, and still more that you should have killed 10 in one year. That is altogether too great a slaughter for any one man to be guilty of. The fact that you have since sold the skins to museums does not justify you. The big game of this entire continent is threatened with extermination. The buffalo has gone and the antelope nearly so; and at the present rate the last mountain sheep will be killed within a few years. I wish all sportsmen who hunt sheep would limit themselves to one or 2 each in a year. The end will come soon enough at this rate; but the evil day may be postponed for some time if all will be moderate.—EDITOR.

GOOD SUGGESTIONS.

The State Fish and Game Commissioners of Montana have made the following recommendations of the Governor of that State.

Coal dust and other noxious materials should not be dumped in streams which bear fish.

The State Board should have power to take any birds or animals for parks and scientific purposes, and power to introduce game animals, birds and fishes.

The exact dates when the open seasons for game begin and end should be stated.

Annual reports should be made to the State Board of all animals under domestication in the State.

Seines should not be allowed in taking fish, except by authority from the State Board, and then for a definite time and place.

The clause relating to the sale of game fishes should be more specific. If the law contemplates that trout should not be sold, it should say "all trout." Experts, so called, are brought in to prove that certain fish are not speckled mountain trout, as protected by our laws.

Shippers should be required to exhibit bills of lading of game and fish, on demand of those having authority.

A definite time should be given, after the end of the open season, for game dealers to dispose of meat. After the expiration of this time possession should be *prima facie* evidence of violation of the law.

The present system of appointing wardens should be abolished, and in its place the power of appointment should rest with the State Board.

To raise funds for the expense of the system a small license fee should be placed on guns, except those regularly in stock by dealers; a small license fee for registered guides; a small fee from taxidermists, to show where hides and heads go; and a fee for a permit to hunt. This should be larger for non-residents than for residents.

The disposition of the fines should be changed. One-half should go to the game and fish fund, the other to the school fund.

Snipe, plover, and doves should be protected by law, and a limit placed on the bag of ducks that may be made. A bounty should be placed on mountain lions, lynx, and wildcats.

Screens should be placed in irrigating ditches, and before the water wheels in mills.

A close season should be established for fish, and no one should take, in one day, more than a definite weight. None should be taken below 6 inches in length.

A State fish hatchery should be established, and 3 to 5 million young placed in streams annually.

Congress should be asked to build a fishway in Clarke's Fork, at Columbia Falls, and to establish, by survey, the Northern and Western boundaries of the Yellowstone Park.

WITH THE DUCKS IN OCTOBER.

One day in October the wind suddenly changed from a mild South breeze to a Northern roar. By evening sleet was falling. Putting on my sleeter and heavy boots, I hurried over to E's.

"Ducks," I said. E. grasped the situation at once.

"To-morrow morning at 3.30," he replied.

I hastened home, cleaned and packed my hunting outfit, went to bed and it was 3:30. I fell over boots and chairs getting awake, and was hardly into my heavy woolen clothing when E.'s footstep sounded on the walk. We had a breakfast of eggs, bacon and coffee, such as only a mother can prepare. As we started for the barn we agreed that if we didn't get something that day we never would.

In a few minutes we were gliding over the icy pavement bound for the lake.

On arrival we aroused the man in charge of the lake and he provided us with a good, dry boat.

Piling in our blankets, we each took an oar and pulled against a heavy Northwester. A point of land that extends several hundred feet out into the lake was chosen as the objective. Sleigh grass covers this point on the South side. When we landed we pulled the boat up into the grass, then waded out and placed our decoys in the more open space. It was not yet day-

light, so we got into the boat and made ourselves comfortable. Soon we heard that whir so familiar to the duck hunter, and a flock of 30 or 40 teal circled and lit. Four barrels rang out, one duck was picked up. Each of us vowed next time we would do better. We had plenty of chances. Our barrels were kept warm. As daylight appeared it revealed bunches of 5 to 50 each, scattered over the lake. It seemed to me only a short time until we had our share, and I was surprised to find it was 6 o'clock.

We decided to stop for lunch. Then we saw that we had only 4 shells left. Each shell, we said, must bring a duck. Our chance came. Against the Eastern sky I discovered a black streak of varying V and W shapes. It came rapidly nearer and before it seemed possible they were down on us. Four clean shots, in quick succession, and 4 ducks gathered in. To our delight we found them to be those coveted Chesapeake ducks, the canvasback, although Nebraska or Dakota bred. They made a total of 27, with which we were well satisfied. We gathered up the decoys, weighed anchor and pulled for the boat house, feeling that we had had a delightful morning.

J. P. Campbell, Lincoln, Neb.

IT DEPENDS ON THEIR NUMBER.

While I believe in protecting game in general I do not believe in protecting rabbits. They are the greatest pest the orchardist has to fight. A farmer may work 10 years to raise an orchard, only to have the rabbits peel and kill trees. Then if a few farmers organize a hunt and kill 50 or 100 rabbits you call them game hogs and want rabbits protected by law for the pleasure of such fellows as have time to go hunting. I wish I had all the rabbits in this country in a pen. I should like to see how many I could kill in a day. I would put in a full day's work. The man who introduced the Belgian hare into this country should be made responsible for all the damage they will do. See what the rabbit pest has cost Australia and New Zealand. Protect all other game but kill rabbits whenever found.

J. F. Cooper, Half Rock. Mo.

ANSWER.

You, evidently, have not read all, or even half I have said about the hunting of rabbits. I have repeatedly said that while a man who kills 20 rabbits in a day in one State may properly be termed a game hog a man who kills 100, or 1,000 in another State may be a public benefactor. If you will look through the files of RECREATION for 5 years past, you will find at least a dozen articles in which I have expressed such sentiments. In most of the Eastern States rabbits are so scarce that a decent sportsman who hunts all day may consider himself in luck if he gets a dozen shots. Yet there are in these States many low, ignorant men who carry ferrets around in their pockets and drive out of their holes all the rabbits they can find. In many cases these men put a gunny sack over the hole, let the ferret chase the rabbit into this, and then beat the rabbit's brains out with a club. In other cases these butchers watch the exit and when the rabbit comes out, they shoot him to death, without giving him any show to escape. These men are hogs.

On the other hand 100 or 1,000 men may surround a large tract of country in the Southwest where rabbits are so numerous as to be a pest, may drive 5,000 or 10,000 rabbits into a corrall, beat them to death with clubs and be doing the country a real service.

It costs only 2 cents to put a wire cone around each of your fruit trees and thus protect them, not only from rabbits, but from woodchucks as well.—EDITOR.

IS PIGEON SHOOTING SPORT?

Cruelty exists so universally in the world, there is so much suffering in every direction and so much cynical indifference to the torture of animals or men, that it would be foolish to make any special plea for pigeons on the ground of humanity; but I appeal to the ingenuity and avarice of the human beings who shoot.

You crack shots are, of course, a necessary feature of a fine civilization. It is true you are not practicing with any idea of defending your country. Hitting a small bird in the air 99 times out of 100 does not mean a good marksman in war. If you wished to be a useful shooter in modern warfare you would practice shooting at targets the size of a human being 2 miles away.

You shoot at pigeons just as a billiard player practices his game, with no end whatever but amusement and the display of some trifling skill. The particular sport in which you engage is not noble. It does not even demand sobriety from its best experts except at the time of the match.

Stir up your ingenuity, Mr. Crackshot. Can't you invent something that will be more difficult to hit than the swiftest pigeon? You are simply thoughtless and not cruel. It is no pleasure to you every time you snap a cartridge to see the miserable bird turn its breast up in the air as the shot enters its heart. You do not enjoy the sight of a pigeon with broken wing fluttering beyond bounds to be kicked to death by the first ruffian who can get near it. Would you not really enjoy the sport at least as much and save money if

you used a mechanical substitute for the live birds?

We might tell you that in the study of the living pigeons and their development you could, if you would, find a subject far more interesting than any amount of pigeon killing. The development of the original wild pigeon under the marvelous influence of domestication and artificial selection constitutes a most wonderful chapter in animal life and in scientific investigation; but we fear the man especially adapted to killing live birds is perhaps not well adapted to the study of the bird before it is let out of the trap to be murdered.

Just why the S. P. C. A. should permit a man to murder pigeons for his amusement and forbid him to chase a jack rabbit with a greyhound we do not quite understand; but probably they do.—Chicago American.

A GOOD RECORD.

I have secured 76 convictions in the following counties: Vanderburg, Posey, Warrick, Marshall, Gibson, Davies, Kosciusko, Sullivan, Vigo, Vermillion, Parke, Marion, Shelby, Jackson and Lawrence. Twenty-one of these cases were for violations of the game laws and 55 for violations of fish laws. In addition I now have 2 appealed cases pending in the Supreme Court. The defendants in these cases were arrested for having quails in possession during the closed season, and were convicted in the 2 lower courts. They are attacking the constitutionality of the law. One of the defendants testified that he had sold 20,000 dozen quails in the city of Indianapolis in the last 3 years. I have convicted 16 men in various parts of the State for selling and keeping quails at times prohibited by law and have almost put the quail dealers out of business.

I have accomplished a good deal toward doing away with the pot fishermen in the Southwestern part of the State, and along Wabash and White rivers. I have had 55 of them heavily fined and have burned 3,855 feet of nets and seines. Violations of the fish law are much rarer than before and hook and line fishing is better than at any time in 10 years. I am now making a fight on the strawboard people, who are emptying their poisonous refuse into the streams. Madison county farmers told me the other day that they saw 2 carloads of dead fish, that had been killed by strawboard refuse at a mill down near Anderson. We will try to have that stopped.

Much additional legislation is needed for the proper protection of fish and game. Fishing and hunting clubs should correspond with one another, ascertain what will meet with general approval, and then set to work to get it. We will keep up a continual warfare on illegal hunters and fishermen and hope to do more for the protection of game this year than last. We have been charged with the enforcement of the game laws only since the meeting of the last Legislature; prior to that time we only had the fish laws to look after.

E. E. Earl, Dep'y Comr. Fish and Game,
Indianapolis, Ind.

POWELL'S BEAR STORY.

"A Racket in the Rockies," is all right and so is its author, Mr. Vermilya, inasmuch as he did not intend to load anybody; but it must be conceded that A. M. Powell is a record breaker with a pistol, if his Alaskan story is true. RECREATION readers are not all boys; many have hunted bear and deer in the Rockies and some have been in Alaska. Three grizzlies and a caribou at 200 yards with a 6-shooter is, to say the least, unusual. Bear No. 1 escaped being shot with a camera and fell a victim to Mr. Powell's revolver. Mr. P. says that bear was dressed and hung up just as darkness set in, and that happened in July, when one can see to read all night in Alaska.

Mr. Powell's next victim was a caribou, running, at 200 yards; a remarkable shot, surely, with a pistol. The same afternoon a huge grizzly was shot at 145 yards, with the same weapon, the bear charging and nearly getting the man. This is the first case known of a wounded bear charging at that distance. Some 3 weeks later Mr. P. had another close shave but finally got his bear. It dressed 800 pounds, which would make its live weight about 1,200. There is no authentic record of a bear of that preposterous weight.

It is much to be regretted that Mr. Powell did not explain just how he managed to preserve all that meat from spoiling, during 3 weeks of hot July weather, and how he packed a ton of meat and his camp duffle on 6 horses.

I once knew a man named Burt. He said he could break a swinging bottle at 200 yards with a rifle every time. It transpired that he couldn't hit a barrel with a shot gun. We meet such fellows occasionally, but it is seldom anyone puts enough faith in their yarns to publish them.

G. H. Tremper, Helena, Mont.

ANSWER.

I sometimes print a statement in RECREATION that I know is not true, just to show how many kinds of a liar a man can be on paper. Moreover it is fun to see the other fellows rip him up the back in subsequent issues.—EDITOR.

HUNTERS WHO ARE SHOT AT SHOULD SHOOT BACK.

I appreciate your efforts for the preservation of game, as well as the many other valuable qualities of your magazine. Along your line of work comes also the preservation of human life, and, in some cases at least, it seems impossible to preserve both the game and the hunters. Under existing circumstances the sooner the deer in the Adirondacks are killed off, or the fool hunters squelched, the better. No man, woman or child who ventures into those hills when the deer-hunting season is on, whether wearing red, blue or gray sweater, or no clothes at all, is safe.

Some time ago I wrote Dr. Webb, who owns a large tract in the Adirondacks, and suggested that he post his forests with permanent signs, about as follows: "Before you shoot know you are not shooting at a human being."

If all individual owners in the State would so board their forests, the number of deaths caused by careless shooters might be largely decreased.

Will you stir up this matter in your characteristic, vigorous manner and receive the blessing of every lover of the woods?

The fall is the most delightful season in the hills, but it is marred by this constant danger. Many people stay at home who would like to enjoy the benefits of the forest at that season. You can accomplish a great good if you will devote half the energy you do to game hogs, whom we all detest.

Why not open a life-saving department in RECREATION? Let us hear from others on this subject.

F. P. H., Syracuse, N. Y.

One good way to check the killing of hunters would be to hunt down and kill every man who shoots, or shoots at, a human being, under the impression that he is a deer. A man who shoots without knowing what he is shooting at is no better than a murderer, and should be as summarily dealt with.—EDITOR.

THE SEVENTH CAVALRY AND THE YELLOWSTONE PARK.

Knowing that RECREATION is ever ready to champion the cause of game protection, I beg it to protest against the removal of D and H troops, 7th Cavalry, from their present station in Yellowstone park. An order was recently issued relieving them from police duty there. The game, especially buffalo and beaver, will surely suffer if a change is made. It takes a detail at least 3 years to learn the habits and haunts of the game and the boundaries of the park, and while they are learning the ropes poachers will have everything their own way. The attention of the War Department should be called to this matter at once. The 7th Cavalry has done more for the protection of the park than any other troops that have been here.

There are 3 scouts in the park—Morrison, Whittaker and Burgess. Morrison can not be relied on; the poachers themselves say they are safe when they see him coming; but if they see one of the other scouts they have to run. The poachers have it in for Whittaker; he is too strict to suit them. Last November he caught 2 men shooting at antelope near this place. It was too dark for fine work, but the men told me he sent bullets whistling mighty close to their heads. Though he is no friend of mine, he is the best man in the park. He has arrested more people since he has been on the force than all the others put together. He can be seen every morning patrolling the North line of the park long before daybreak. Sergeant Wall and Scout Burgess are 2 other men who put the fear of God in the poachers.

A. B. C., Gardiner, Mont.

A MODEST CAMP.

West Palm Beach, Fla.

Editor RECREATION:

"How to Build a Camp," in August RECREATION, page 113, was an inspiration to me and filled a long felt want. I went right over in the Everglades, where land can still be had for 2,000 plunks an acre, and started 3 places on the lines indicated, one for my private use, one for you, Old Boy, and one for some mutual friend. My house stands in the center of the trio. To enable me to distinguish it easily, should I ever come home too full of ozone, I sent to Colorado for a few carloads of rose quartz, well filled with gold. With this I expect to make a sort of inlay, using coquina rock as a cement.

The other 2 houses will be inlaid in much the same way, using pyrites of iron for the one and moss agates for the other. To preserve the harmony of the whole, there will be, immediately over the entrance of each house, a ruby about the size of an ordinary water bucket. I intended to use a larger stone, but found them hard to get without flaws, or money.

To prevent the blooming tourist from annoying us I went some 250 miles into the Glades. Our own transportation will be made by means of compressed air. Recent experiments have shown it possible to traverse the distance in 8 minutes, landing in a bathtub of Florida water.

We will use the wireless telegraph, the photo-telephone, and stored solar rays for lighting. I expect great things from the photo-telephone. By a system of mirrors

I expect to be brought into direct communication with all the game. There are a few other improvements I will tell you about when you come down.

J. E. Miller.

GAME NOTES.

Will you kindly send me a recipe to keep the hair from falling from a mounted caribou head? It was brought from Circle City, Alaska, and the hide was not in good condition.

Geo. A. Auchors, Washington, Pa.

ANSWER

Your caribou head is undoubtedly infested with moths, which are eating off the hair at the roots. To stop this have a druggist make a solution of one quart of wood alcohol, containing corrosive sublimate powder, in the proportions of one to 1,000. Turn the head upside down, and carefully pour the liquid into the hair, so it will run down to the roots at every part. When it evaporates, it will leave at the roots of the hair a deposit of the corrosive sublimate, which will be death to all moths. No time should be lost in doing this.—EDITOR.

The prospect for birds here is excellent, not only in this immediate locality, but in other parts of Virginia and North Carolina from which I have received reliable advices. Turkeys are plentiful in this section, but I believe are fast disappearing elsewhere. The nesting time here was most favorable and the coveys are numerous now, many being large birds, while others have not yet left the ground. My brother from Winston was here for a fortnight, and he is a veteran sportsman of—well, an uncertain number of seasons; he being still a bachelor, it would not do to be too definite—and he says he has never known a better prospect for birds and turkeys here, and for birds and deer up at his place, Hyco, in Caswell county, North Carolina.

Jennie P. Buford, Lawrenceville, Va.

I have a pair of elk horns larger than those owned by Mr. Darling and described in March RECREATION. Mine measure from tip to tip and across the skull 9 feet 3½ inches. If the tape is made to closely follow the outline of the skull between the horns, it adds 1¼ to 1½ inches to above measurement. There are 10 prongs; the largest is 17½ inches long. The elk was shot 17 or 18 years ago in the Musselshell river, Montana. The points of the horns, unlike those shown in the photo in March RECREATION, curve inward. Is the variation common? If not which is the normal form? Should like to know the weight of the horns owned by Mr. Darling; also how much of the skull remains attached.

Dr. B. M. Freed, Sharon, Pa.

Wm. Vermillion, our popular implement man, returned Thursday night from a 4-days' hunt in Clay county. A. K. Montgomery, a traveling man, was with him. So plentiful was game that in 4 days they killed 450 quails. The abundance of quails down there is accounted for on the theory that Clay county people are politicians and not hunters.—Taylorville, Ill., paper.

In reply to my letter Wm. Vermillion admits that the above statement is correct—or "corect," as he puts it. Therefore I congratulate the people of Clay county. Two sportsmen sometimes kill 80 quails in 4 days; and poultry butchers often kill 450 fowls in the same time, but nobody envies them the job and they seldom brag about it. —EDITOR.

H. V. Shelley, of Ridgeburg, N. Y., says all boys under 18 who wish to use guns should give bonds to county game wardens. I do not see why. I am a boy and have a rifle and do not need to be put under bond, for I take RECREATION and follow its teachings. My friends do not need to be put under bonds, either. There may be a few bad boys, but why not send them RECREATION? They would then be all right. It is not boys who thin out the game; it is pot hunters. What little we kill is usually killed with rifles and not with shot guns that cover all the territory in sight. Lee B. Chase, Chicago, Ill.

I have had much pleasure in reading the interesting article in July RECREATION entitled, "Twenty-one Grizzlies in Sight." It is a pity Dr. Penfield's professional obligations compelled him to leave his comrades before he had any sport or amusement. I have yet to hear of a doctor who did not score if within the limits of average human skill, courage or endurance. I hope to hear that the doctor can have a longer vacation the coming season I am certain if he has lost a grizzly and finds him he will take him to New York and toast his slippered toes on his furry pelt many a cold night after a hard day's work.

J. A. Sampsell, M.D., New Orleans, La.

The first important step in game protection is a gun license. There are youngsters of 10 to 18 vears seen here daily in the woods who shoot every kind of bird they find. I have seen them shoot birds on the nest. A gun license of a few dollars would

stop all this. If a gun license cost $5 a year I would not consider it a cent too much. The man who would object is no sportsman. The open season for rabbits should be the month of November. Now they are hunted from August to February. A short rabbit season would save thousands of quails.

Fred N. Leidolf, Fort Wayne, Ind.

I thoroughly enjoy RECREATION. I am an ardent lover of animals and birds, especially the latter, and I have now, in my grounds in this city, an aviary containing what is said to be the largest private collection in the United States. Besides many small birds, I have 7 varieties of pheasants and 5 varieties of quails. My greatest pleasure is in the rearing of the young. I always watch RECREATION closely to see if I can glean any new ideas for my hobby. I never read a magazine I liked so well. Success to it.

J. W. Sefton, San Diego, Cal.

Gee whiz! That Sharpsburg druggist, whose photo is shown in July, 1902, RECREATION, page 32, has a hard-looking mug. Are all druggists like him? I wonder if his neighbors have to keep their hen houses locked? Too bad nice dogs have to associate with such things. He must be a trust man; wants it all. You do the swine an injustice by your comparison. They have some right among men; this fellow has none. Wonder what kind of pills he sells?

W. M. B., Magdalena, N. M.

In a recent number of RECREATION, W. L. Winegar jumps on Guide Hammond, of Missoula, Montana. It happens I was in the Clear River country when Hammond was there, and, by the way, he is not from Missoula, but from Hamilton. To my knowledge the Hammond outfit shot but one head of game to the man, or 6 in all. Yet Winegar tries to load them with 26 elk.

M. P. Dunham, Ovondo, Mont.

In '64 I hunted deer and bear in the vicinity of Rum river, Minn. Passing one day through a grove of burr oaks I saw a coon in the crotch of a tree some 20 feet from the ground. I put a ball through his head, and carrying him to the cabin found he weighed just 30 pounds. Can any of your numerous readers beat this for weight?

J. Dimon, Hammondsport, N. Y.

Will you ask your readers to please give some preparation that will remove the odor from skunk fur?

C. J. Boyle, San Rafael, Cal.

ANSWER.

There is no preparation that will remove the odor of skunk so effectually that a damp day or a warm place will not make it manifest.—EDITOR.

C. Van Antwerp, E. L. Teeple, Fred Aldrich and Art. Hubbard, of Tecumseh, Mich., with 3 guns and 2 ferrets killed 27 bunnies Sunday, January 13. They are exceedingly proud of the record. I wish they could be fitted out with rings in their snouts as is done with other vicious hogs.

Legitimate Hunter, Tecumseh, Mich.

Game is killed here at all seasons, regardless of law, by both white men and Indians. Deer and antelope are killed for their hides alone. I saw last fall, in a deserted Indian camp, 14 carcases of deer from which but little meat had been cut.

Omer Franks, Fair View, N. M.

I have been reading RECREATION a long time and find much valuable information in it. Am not so big a game hog as I was. Have joined the L. A. S. and am doing all I can to stop the work of the hogs.

H. G. Edwards, Hopkinsville, Ky.

The law of Kansas for the protection of birds is so stringent and so easily enforced that there is no just reason on the part of anyone for complaint against pot hunters or other violaters of the law.—The Commoner, Wichita, Kans.

You are entitled to the time, talents and support of all decent men for what you are doing, not only for the game, but for the men who pursue it. You are not only saving game, you are making men.

V. W. B. Hedgepeth, Goshen, Ind.

Quails, chickens, ducks and geese are becoming scarce in Kansas. We have too many market hunters, and they all work overtime.

Dr. J. M. Coulter, Minneapolis, Kan.

We have many quails here, some chickens and plenty of squirrels.

C. S. Cunningham, Flora, Ill.

Mamma (explaining spiritual truths to her little boy)—Tommy, when you die you leave your body behind; only your soul goes to heaven.

Tommy—Well, mamma, what will I button my pants to?—Exchange.

ALMANAC FOR SALT WATER FISHERMEN.

The following will be found accurate and valuable for the vicinity of New York City:

Kingfish—Barb, Sea-Mink, Whiting. June to September. Haunts: The surf and deep channels of strong tide streams. Baits: Blood worms, shedder crabs and beach crustaceans. Time and tide: Flood, early morning.

Plaice—Fluke, Turbot, Flounder. May 15 to November 30. Haunts: The surf, mouth of tidal streams. Baits: Shedder crabs, killi-fish, sand laut. Time and tide: Ebb, daytime exclusively.

Spanish mackerel—Haunts: The open sea, July to September. Baits: Menhaden, trolling—metal and cedar squids.

Striped Bass—Rock Fish, Green Head. April to November. Haunts: The surf, bays, estuaries and tidal streams. Baits: Blood worms, shedder crabs, Calico crabs, small eels, menhaden. Time and tide. Night, half flood to flood, to half ebb.

The Drums, Red and Black. June to November. Haunts: The surf and mouths of large bays. Bait: Skinner crab. Time and tide: Day, flood.

Blackfish—Tautog, April to November. Haunts: Surf, vicinity of piling and old wrecks in bays. Baits: Sand worm, blood worm, shedder crabs, clams. Time and tide: Daytime, flood.

Lafayette—Spot, Goody, Cape May Goody. August to October. Haunts: Channels of tidal streams. Baits: Shedder crabs, sand worms, clams. Time and Tide: Day and night flood.

Croker—July to October. Haunts: Deep channels of bays. Baits: Shedder crabs, mussels. Time and tide: Day, flood.

Snapper—Young of Blue Fish. August to November. Haunts: Rivers and all tide ways. Baits: Spearing and menhaden; trolling pearl squid. Time and tide: Day, all tides.

Sheepshead—June to October. Haunts: Surf and bays, vicinity of old wrecks. Baits: Clams, mussels, shedder crabs. Time and tide: Day, flood only.

New England Whiting—Winter Weak-fish, Frost-fish. November to May. Haunts: The surf. Baits: Sand laut, spearing. Time and tide: Night, flood.

Hake—Ling. October to June. Haunts: Open sea surf, large bays. Baits: Clams, mussels, fish. Time and tide: Day and night, flood.

Weak-fish—Squeteague, Squit. June to October. Haunts: Surf; all tideways. Baits: Shedder crabs, surf mullet, menhaden, ledge mussels, sand laut, shrimp. Time and tide: Day and night, flood preferred.

Blue Fish—Horse Mackerel. June to November 1st. Haunts: Surf, open sea and large bays. Baits: Menhaden, surf mullet and trolling squid. Time and tide: Daytime; not affected by tides.

BROWN TROUT.

THEODORE GORDON.

For some years after its introduction into many of our waters, a strong prejudice existed against the European trout (*Salmo fario*), commonly known as the brown trout. It was said that it destroyed the native trout; that it was not equal to it as a table fish or as affording sport for the angler; that it was dull, stupid and lazy, and always a cannibal after reaching a certain size. Lately, however, I have heard but few complaints, and I know men who admire this fish and dispute all assertions to its discredit. They claim that it is a free riser to the fly, less shy than the brook trout and that it gives great sport when hooked; also that if a brown and a brook trout of the same size are cooked and served in the same dish, an epicure, if blindfolded, can not detect any appreciable difference in their flesh.

It would be interesting to hear from various parts of the country where these foreigners have become numerous. They are now found as far West as Colorado, in Michigan and in many other States. In New York they are abundant and have certainly taken the place formerly occupied by the brook trout in some of our brooks. In other waters the 2 species exist together, but I doubt if this state of affairs can be continued, as the brown trout grows much more rapidly than the native fish, and where food is plentiful attains great size. It can endure a higher temperature than any of our native trout except the rainbow (*Iridius*), and I know of good spring fishing in rivers where 20 years ago no trout were found, except in the upper and colder portions. Ten or 15 years ago a pound trout was a large fish in many of our best streams. Since the introduction of brown trout 2 pounders have become common and much larger fish are taken. Trout up to 5 pounds have been caught with fly, and fish up to 8 or 9 pounds reported as taken with bait, though I think most of those big fish have been unfairly dealt with. I saw one of 6 pounds with a small hole through its shoulder, and I afterward heard it had been speared with a pitchfork. Big fish are hooked every season with small flies, but usually escape, owing to the light tackle employed by expert anglers. The probability or chance of striking one of these Jumbos adds decidedly to the interest of fly fishing; but a 4-ounce rod and a gossamer gut line put the angler at a great disadvantage. He hooks his fish and plays it, perhaps, half a mile down stream. The fish stops now and then for rest or recreation, maybe, close enough to stare his would-be captor out of countenance. Finally the gut is worn through by friction, cut by the sharp teeth or pulled apart, as one friend says, and fish and man part company, greatly to the disgust of the latter, who is probably trembling with excitement. This is not a fancy sketch.

With modern fish culture there is no great difficulty in keeping up a good stock of trout in free water, though this is be-

coming more limited every year. I have had better fishing of recent years in neighboring streams than I ever had in my youth. For this I thank the State of New York, whose well managed hatcheries have stocked public waters with multitudes of fry and even yearlings. Anyone who has watched, through a series of years, the rapid increase of a foreign breed of trout, in any stream, from fry only, will never doubt the efficacy of stocking even with fry alone. With the improved methods now in use, it is possible to release the fry much later in the season than formerly, when the streams have reached their normal level and when, owing to the higher temperature, there is far more food for the young fish, insects, larvæ, etc. The growth rate is entirely governed by the supply of food and that seems to be abundant in all the brooks of any size which I have investigated. I hear constantly of fine fish being taken from water that has been entirely unproductive for many years, and I am inclined to believe it pays best, on the whole, to stock with the brown trout, because of its rapid increase in size and numbers. It is a good fish for the table. I advise those who complain of the coarseness of the large brown trout to have them boiled and served as a salmon would be. If in good condition, even large brown trout are excellent eating and are not bad when served cold with mayonnaise dressing.

Brown trout rise well, but require a fair variety of flies. Color and size must be attended to, though sometimes these trout will rise at almost anything. I have taken some large fish, one 3-pounder, with the following pattern: Tay, gold tinsel; tail, grey mallard; body, pale yellow wool; wings, grey mallard; legs, light brown or red hackle. In fact, much the same fly as the old reliable Professor, but the color of the body can not be got with silk, which changes more or less when wet. Natural flies of this color may be seen in May and June, as beautiful as the celebrated English May fly.

I am told that on the other side of the Atlantic anglers, in parting, instead of wishing each other good luck, say "Tight lines." I have seen this expression in print, and it has always reminded me of occasions when I have had tight lines indeed, but they were forced on me by getting fast in old stumps or logs, or catching my flies high in some sturdy tree. Many flies and beautifully fine leaders have been left to dangle hopelessly in the summer air, and remembering the effects of such misfortunes on the tempers of the most amiable men, I will stick to the good old parting words, "Good luck," leaving "Tight lines," to our cousins of the "fast-anchored isle."

ANOTHER BUNCH OF MICHIGAN SWINE.

The following clipping from a Michigan paper was sent me by a subscriber:

C. J. Wickstrom and C. O. Jackola, of Calumet, brought back from Lac La Belle, in Keweenaw county, 200 pounds of fish.

I wrote Wickstrom and Jackola as follows:

I am informed that you and a friend caught 200 pounds of fish on a recent trip. Will you kindly tell me if this report is true, and if so give full particulars.

In due time I received the following replies:

It is true that my friend, C. O. Jackola, J.P., and I went into the woods for a 3 days' fishing trip the first of this month. We drove down to Lac La Belle and made 3 trips on the lake. We fished with hook and line, used worms for bait and in all we caught 200 pounds of black bass, pickerel and perch.

C. J. Wickstrom, Calumet, Mich.

The information you have received is not exaggerated. C. J. Wickstrom and I made a fishing trip to Lac La Belle, in Keweenaw county, about 30 miles North of Calumet, and in 3 trips to the lake we caught 200 pounds of pickerel, perch and bass with hook and line. This, however, is not an uncommon occurrence. We have caught 600 pounds in 4 successive hauls from the same lake, but at that time we were 4 men in the party and for 10 years past there had been little fishing done in that lake.

Charles O. Jackola, Calumet, Mich.

There are several queer statements in Jackola's letter. He says: "We have caught 600 pounds in 4 successive hauls from the same lake." This sounds as if these men had been drawing a seine, or possibly he means they hauled the fish away from the lake in a hand wagon. Or it may mean that they simply put in their time hauling the fish into the boat with hand lines, which is more probable. This is the kind of tackle such measly bristlebacks as Jackola and Wickstrom generally use. Jackola intimates that this recent great catch was possible because there had been little fishing done in the lake during the past 10 years. If these same shoats had been going to that lake every year, they certainly could not have caught so many fish this year as they did. I wish someone would invent a torpedo that could be set and attached to wires leading around lakes and along streams that are well stocked with fish and that would explode whenever touched by a fish hog. Of course such a machine would have to be equipped with something like human intelligence, so it

would not blow up decent sportsmen. Will not Mr. Edison turn his attention to this great need of humanity and see what he can do for us?—EDITOR.

A MINNEAPOLIS MUSKALONGE MURDERER.

Enclosed I send you a printed slip which has been distributed around the streets of Minneapolis by one William Hutchins, who poses as the Secretary of the Muskalonge Fishing Club. As you will see by his own statement, he is a confirmed fish hog.

Clinton F. McKusick, Minneapolis, Minn.

The text of the circular is as follows:

THE MUSKALONGE FISHING CLUB.
(Limited.)

I respectfully call your attention to the above club, also to the fact that you can get the best kind of fishing at this resort that is to be found in fresh water. Muskalonges weighing up to 30 and 40 and some at 60 pounds. As you perhaps know, muskalonge fishing is allowed by law at any time. I have express receipts to show that I shipped 28 barrels, or over 4,600 pounds, of muskalonge caught by myself and brother only in 4 days. Wall-eyed pike, pickerel, perch, whitefish, lake trout and large, toothsome bass are also there in unlimited numbers, as I can vouch for. Good hotel accommodations for club members. Good cooking and plenty of it.

Wm. Hutchins, Secretary.

I wrote Mr. Hutchins, asking if the statement in his circular was accurate and he replied:

What you have been told in regard to myself and brother catching 4,600 pounds of muskalonge is true. I can prove that there are more muskalonge at this resort than can be found in any other body of water in this country, for the reason that the outlet of this lake is closed 10 months of the year. The inlet is underground springs. The lake is 25 miles long and 18 to 24 miles wide, all sand and gravel beach. I had over 1,000 pounds of muskalonge on exhibition in this city last summer. That is the way I advertise. I show the goods.

W. H. Hutchins, Minneapolis, Minn.

I have heard of fish hogs before, but you and your brother certainly wear the longest bristles and the longest snouts of any of them. Mille Lacs certainly must be well stocked with muskalonge, but if such dirty brutes as you are allowed to root in it unrestrained, it is safe to assume there will not be a dozen fish left in 2 years. If I were in business in Minneapolis or anywhere else, and you should come to me with a request to be allowed to exhibit in my window 1,000 pounds of muskalonge, taken at one catch, I would kick you down the street as far and as long as I could find piece of you.—EDITOR.

SOME MAINE FISHING.

June 13 Mr. A. L. Bacon and I drove 17 miles East of Bangor to Flood's pond. It is in a hilly country in the town of Otis. Few ponds in the State afford greater sport for the angler than Flood's. It is well supplied with squaretail trout, and a species that is known about here as the silvertail. This is not so stocky a fish as the regular squaretail, being more like the togue. Flood's is one of the few ponds in the country where these silvertail trout are found. Every year the United States Fish Commission sends a man there to get trout and spawn for stocking lakes and ponds.

While at Flood's pond we caught a great many fish and were well pleased with our trip. The day before we started home was bright and sunny. We fished every way that is known to the angler, and were rowing down the pond without a single fish, feeling rather blue. I was rowing through a part of the pond called the narrows and Bacon was trolling, when suddenly his reel began to sing. He thought his line was caught on the bottom. I rowed back to the place where the end of the line seemed to be caught. Meanwhile Bacon was standing up, reeling in the line as fast as we moved backward. Suddenly the line tightened and began to move slowly out into the deeper water of the lake. Bacon shouted, "I've got a whale!" and then he settled down in true sportsman's style with a determination to land that fish. We rowed around, following it as best we could. Finally we got it up to the boat so we could reach it with the landing net and take it in. It weighed 3 pounds and 7 ounces and was the largest silvertail taken out of the pond during the season.

That is also a great game country. While there we saw 21 deer and a great many ruffed grouse.

B. R. Berry, Bangor, Me.

THE ROOTERS STILL ROOT.

Herewith I enclose an account of the fishing contest of 1902.

John Raines, 3rd, Canandaigua, N. Y.

The people of Naples were regaled with a great show of the finny tribe as a result of the fishing contest of the Naples Association. The display compared well with the best of previous contests. The scoring was by weight with a varying grade of points to the pound, according to the grade of the fish. Trout, 25 points to the pound; pike 15, whitefish 15, pickerel 8, perch and sunfish 8.

There were 21 contestants, as follows, with their respective scores:

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Captain, D. Farr...	216	Capt. F. Thompson.	60
S. R. Sutton.....	56	G. F. Beach.....	227
Elmer Hinckley....	188	J. Saunders.....	184
Mark Folts.....	384	B. N. Hinckley....	323
J. H. Tozer.....	101	C. Fox.....	112
Dr. Barringer.....	000	R. Meyer.....	212
E. Haynes.....	197	G. W. Case.....	124
W. H. Tobey.....	124	Grant Lee.....	00
John C. Bolles....	176	S. H. Howse.....	44
George Gillett.....	72	S. A. Story.....	00
D. P. Wood ½....	58	D. P. Wood ½....	58
	1572		1429

This gave the contest to Farr and his men by 143 points. A dinner was served at the club house at the expense of the other fellows.
—Naples (N. Y.) Paper.

Thus we see that the swine are still at large up the State. If there are any decent sportsmen in Naples why don't they round up these brutes and put them in the pound? —EDITOR.

MORE PENNSYLVANIA ROOTERS.

Herewith I enclose clipping from the Lehigh Register and Patriot, of Allentown, Pa. I suggest that you enter tne names of the parties in vour fish hog catalogue, which I understand you are getting out.
C. W. Rice, Perth Amboy, N. J.

L. A. Gardner, George Selbert and Charles Arner, of Easton, who returned Thursday morning from a fishing trip to Monroe county, caught 242 trout.

I wrote these men for confirmation of the statement and received the following reply:

Two friends and I fished on the 15th and 16th of April, in the East Brodhead, Stony run, Mill creek and Buch Hill and we caught our limit, 150 trout.
L. A. Gardner, Easton, Pa.

There are dozens of decent sportsmen in your State no one of whom would be guilty of catching that number of fish in a day now, even though the law does allow them to take 50 each.—EDITOR.

A GOOD FIGHTING WARDEN.

Our local warden, Mr. Joe Kline, has had 14 convictions out of 17 arrests. One conviction was for destroying a robin's nest, $25 fine, and one was for gill netting in one of our small lakes. That man was fined $200 and costs, making a total of $256. Mr. Kline is doing good work and needs encouragement. The parties arrested always put up a strong, hot fight, but Mr. Kline will win out. We need protection here for our fishes, as our lakes are small. We have black bass and bluegills and if they are given the right kind of protection the fishing will again be good in a few years. Fishing through the ice has almost depleted the stock of bass, as 9 out of 10 fish caught here in that way are females, and large ones at that. I have seen bass taken through the ice that would weigh over 4 pounds and they were full of spawn.
E. R., Ravenna, Ohio.

NIBBLES.

Every winter for the last 7 years it has been my custom to spend 2 weeks to 3 months in Florida, and much of that time has been spent fishing. I have never fished in the inland waters of Florida; but I have noticed every succeeding winter a progressive deterioration of the salt water fishing at the points I have visited, principally Indian river and Sarasota bay, until now legitimate sport is nearly ruined. The cause is apparent, namely, promiscuous and unrestrained netting at all seasons of the year, and the killing of all fish, great and small, by stop nets and seines. The people of Florida should wake up and procure and enforce judicious legislation on this subject, or soon there will be no fish and an important source of revenue will be lost. M. D. Ewell, M.D., Chicago, Ill.

One Paul Steinberg, of Fountain City, Wis., was recently arrested by Chief of Police Smith and Marshall Ruediger, of that place, for fishing with a seine in the Mississippi river in violation of the Wisconsin State law. Steinberg was caught in the act, was fined $50, and his seine, his boat and his new Winchester rifle were confiscated. He probably took the gun with him to shoot officers, but it would seem that his courage failed him when Smith and Ruediger descended on him. Steinberg was unable to pay his fine and went to jail to serve it out. He will have plenty of time there to think it over.

Last spring my brother, Dr. L. G. Verrill, and I, while on a fishing trip, took an albino pickerel 16 inches long. In shape he was like any pickerel, but his scales were pure white, with fins of a pink shade. He was taken at Snows Falls, Me. We also caught several ordinary pickerel. We saw the albino before he struck for the hook, which he missed the first time, but the second cast brought him. He was fierce and handled himself as quickly and actively as the best of them. Do you or the readers of RECREATION know any reason for such a freak? We are having it mounted.
Alton J. Verrill, Oxford, Me.

Kent, Ohio—The jury in the case of John Hanselmann, the Akron man charged with gill netting at Stratton's lake, returned a verdict of guilty. Justice Johnson fined the prisoner $200 and costs.—Cleveland (Ohio) Paper.

GUNS AND AMMUNITION.

Anybody can keep shooting all day, but it takes a gentleman to quit when he gets enough.

THOUGHTS REGARDING MARLIN.

I do not see how anyone who claims to be a sportsman can get along without your magazine. It is worth more than the price just to read about those Marlins. Their idea of bringing suit against you was as bad as the action of their rifles. You can prove everything you have published. I have had some experience with Marlin rifles myself, and I would rather go hunting with a club than with a Marlin. I should have less trouble and more game. I was at a shooting match the other day where there were several Marlins. Almost every time the men got ready to shoot they had to bother with that same old complaint, the action. I won all the turkeys.

I do not understand why the Colt Arms Co. does not advertise in RECREATION. The Winchester rifle is all right, but I count the Marlin worthless.

Arthur C. James, Anita, Ia.

I saw in October RECREATION some complaints about the Marlin rifle and am glad sportsmen are finding out the weak points of that weapon. In '95 I was in the Black Hills and was proud of my 38-55 Marlin until I tried to bag an antelope. The first shell from the magazine worked all right; the second did not, and I lost my game. I sold that gun and bought a Winchester, which has proved reliable at all times. The Peters cartridges are inferior to any other ammunition I ever used. I bought 200 32-caliber revolver cartridges and, as I can prove by 5 friends, only 64 out of the lot would explode in the revolver used, which was a standard 32-20 Colt. I snapped some of those cartridges as many as 15 times. U. M. C. ammunition is excellent and little fault can be found with it. M. A. G., San Diego, Cal.

I am an ardent admirer of RECREATION and of the way it handles the troubles among guns, game and hogs. I note the trouble over the Marlin. The 22 caliber is defective beyond any doubt. I have a gallery, and my manager, Mr. Cheatwood, is an expert with guns, but he can not keep the Marlin from clogging with empty shells. If the gun is held in a vertical position the 22 short will tip back and the ball will catch against the cap and will not load. I have worked with guns, in making and repairing them, for 18 years, and I can not make the Marlin work, though it is a good shooting gun and attractive in shape. Am compelled to take the Marlins out of the gallery.

J. W. Puterbaugh, San Jose, Cal.

One of my neighbors intended buying a Marlin repeating shot gun and sent for circulars. They came, also a little leaflet containing unpleasant remarks regarding yourself and RECREATION. The boy had his mind set on a Marlin, but on reading the leaflet he said, "I don't want their gun, if that is the sort of people they are," and immediately sent his order to another house. Now, if that will influence a lad of 14 years how much more will it prejudice older and more experienced persons. Good for the kid! Wish a few more would do the same thing. When they jump on G. O. S. and his work they have tackled the wrong proposition.

Fred Whittle, Northfield, Minn.

I notice the controversy between yourself and Mr. Marlin, of the Marlin Fire Arms Company. In my opinion Mr. Marlin would better "go 'way back and sit down," if he does not wish to have the hearty hate of all true sportsmen. He has chosen the wrong course to further the sale of his guns. I had the misfortune to own a Marlin rifle once, and they are not worth the powder to blow them to a warmer climate. If Marlin wishes any verification from this quarter as to the worthlessness of his rifles I shall be pleased to pay postage both ways.

Jno. R. Hamilton, Monango, N. D.

About that Marlin gun: I saw George last night. He said to tell you his first one did fairly well, but not so good as my Winchester. His Marlin failed to extract all shells.

He raffled it off, and bought another of the same make that cost him $34. It was an elegantly finished gun, but failed to extract shells; in fact, it was a complete failure.

I have never had a bit of trouble with my Winchester. It is a perfect quail gun, being a cylinder bore.

Clarence B. Muchmore, Charleston, Ill.

Your correspondents who pound the Marlin rifle doubtless have good reason for doing so. A neighbor named Puton bought a Marlin repeater for $12. After having it 3 days he sold it to me for $2.50. I tried the gun, and finding it balked half the time, sold it for $1.50. Don't know what my customer will do with it. If he sells it here it will be to the junk man.

H. J. Davison, Charlton Depot, Mass.

AGREE WITH MR. RUTHERFORD.

I agree with F. Q. Rutherford, in May RECREATION, that the Savage should handle the standard army cartridge, and no other in the same gun, to give it stand-

ing with riflemen who know that a gun that will shoot many cartridges can not be depended on to shoot any one of them reliably. It lacks character, like a jack-of-all-trades, and nobody has faith in it. If one wishes a gun merely to play with, it may serve; but a gun that does not require extended experimentation and constant alteration of sights to suit different loads is the gun that the practical rifleman wants, and for that reason he turns to the Winchester, model 1895; of the reliability and uniform shooting of which, his mind is satisfied *a priori*. Even the Savage Company, itself, acknowledges its inability to sight the guns at the factory for accuracy before putting them on the market. The reason they give is, candidly, that if they sighted a gun for one cartridge it would not suit the other cartridges it takes, and they therefore leave it to the purchaser to settle the vexed question for himself, if he can. No Winchester rifle is ever put on the market without first being sighted and shot, for accuracy. When you buy it you buy it ready for use and do not have to experiment for months to find out what it will do, and perhaps never learn. I have not bought a Savage for above reasons and I know many people of similar views. I can readily conceive, however, that if the gun were made to take the army 30-40, and that alone, and sighted for accuracy for that cartridge and guaranteed to shoot it accurately, I should promptly buy one. We all know that the rifling to shoot best a powerful cartridge, must have a certain definite pitch and that this pitch will not perfectly suit a smaller charge; therefore when it is claimed that any one gun will shoot large and small charges equally well, we know that it will not shoot any charge in the best manner possible, and we suspect an effort at compromise in the matter of twist that should cause the gun to rate as a second class shooter. As every well informed rifleman will be content with nothing less than the best shooter obtainable and will tolerate nothing mediocre, the Savage will not rate as first choice until one gun is made, and exclusively adapted, for one cartridge, be it powerful or weak. I should like a Savage to shoot the 30-40 cartridge as accurately as the Winchester, model 1895, and should also like one to shoot the 6 mm. navy cartridge as accurately as the Lee straight pull repeater. Each gun named has its fixed and definite value. With a Savage, shooting the 6 mm., or 23 caliber, navy cartridge, Lyman sights could be used; which is impracticable on the model now made by the Winchester Company for that cartridge. This would make the Savage the ideal long range, flat trajectory rifle; in my judgment the best rifle in the world, military or sporting.

John F. Keenan, M. D., Washington, D. C.

I see in May RECREATION, a letter from T. Q. Rutherford, Chihuahua, Mexico, "A Suggestion for Savage." I am using a 30-30 Savage rifle for deer shooting, but I am of the same opinion as Mr. Rutherford, that a 30-40, made by the Savage people, would be just what is wanted by a large majority of the hunters in this section. I am ready to buy one as soon as they are put on the market. Should like to hear what the Savage people say.

J. Chester, Sarnia, Ont.

You should read what the Savage Arms Company says on this subject in August RECREATION, page 132.

WINCHESTER AND REMINGTON-LEE.

In May RECREATION C. R. Benjamin asks about the good points of the '95 model, Winchester 30-40, and how it compares with the 32-40 as a deer and bear gun.

As to its good points, I will compare it with the Remington-Lee, which is the only other repeater on the market at present that handles this shell. The Remington-Lee and the Winchester both have box-magazines which extend beyond the receiver; but the Remington-Lee uses the bolt, while the Winchester depends on the lever to actuate the mechanism. In every other respect these arms are practically similar. It is simply a question of which system you prefer.

As far as actual hunting is concerned one rifle is as good as the other. I prefer the Winchester. The 32-40 bullet weighs 165 grains; the 30-40, 220 grains. The 32-40 has a velocity of 1385, while the 30-40 has a velocity of 1960 feet a second. The striking power of the 30-40 in foot pounds is 1,887 and that of the far famed 30-30 only 1,269. I leave it to the readers of RECREATION to figure out the force in foot pounds of the 32-40 with its 40 grains of black or low pressure smokeless powder and its 165 grain lead bullet.

If Mr. Benjamin intends to hunt game up to deer, a 32-40 is an excellent rifle; but if he wants an all purpose gun he will make no mistake in choosing a 30-40.

G. L. Watkyns, Pasadena, Cal.

WHAT A .38 WILL KILL.

I should like to know what a 38 caliber bullet, shot from a 38-56 rifle, would kill at a distance of 30 yards or more. Also, what a 38 rim fire bullet, shot from a revolver, would kill at 10 yards or more.

Thomas Kennelly, New York City.

ANSWER.

A bullet from a 38 caliber rifle, shooting

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a 38-56-256 cartridge, will give about 10 inches penetration in pine. This cartridge is a killing charge for any game found in this country at ordinary ranges. For large and dangerous game, a still heavier charge would be desirable, although this charge would kill if the shots were properly placed. The 38 caliber is excellent for deer, brown and black bear and smaller game. The penetration of a 38 long rim fire pistol cartridge is about 2 inches in pine at a distance of 20 feet. This, of course, would be sufficient to wound a man fatally anywhere within 100 yards, if hit. There have been instances where game as large as deer has been killed by charges no heavier than the 38 rim fire, but this must be considered as accidental. It is usually folly to shoot at game with so small a charge, as the chances are the animal will escape wounded and ultimately die.—EDITOR.

PREFERS BULK POWDER.

I have tried every brand of nitro powder made or sold in this country. As I found the bulk powders in every respect better than the dense, I will write only of the former. In those, I obtained good results with DuPont, 3½ drams loaded in 2¾ inch, 12 gauge U. M. C. shells, one nitro card and 3 black edge wads. This load gave good pattern and fair penetration. An increase of powder did not improve it.

My favorite load for field shooting and at the trap is 3¼ drams powder in 2¾ inch shell; one nitro card, one nitro felt, one black edge wad; 1⅛ ounce No. 7 soft shot. In my Lefever gun this load will pattern 260 in a 30 inch circle at 40 yards, and fairly pulverizes clay targets. For live birds I use 3½ drams of powder, a black edge wad in place of the card, and same charge of shot. For ducks, the same load with No. 5 or No. 6 shot. The live bird load will target 268 pellets in a 30 inch ring at 40 yards. January 1st I killed with it 43 birds straight at 31 yards rise. Only one fell out of bounds, and I used the second barrel but 5 times.

I am sorry the Shultze people do not advertise their products in RECREATION, for I am sure it would pay them to do so.

Nitro, Auburn, N. Y.

SMALL SHOT.

Which has the longer range, the 7 mm. Mauser or the 6 mm. Lee straight pull? Which the greater penetration?

T. J. Gibbs, Eckley, Ohio.

ANSWER.

Because of its heavier bullet, the 7 mm. Mauser has a far longer effective range than the 6 mm. Lee. No data are obtainable as to the extreme range of either of these arms, but in the .311 German Mauser it is 4,300 to 4,400 yards. The 6 mm. Lee has a greater point-blank range and consequently a larger danger zone than any other rifle, but at distances exceeding 800 yards its light bullet, 112 grains, loses velocity rapidly, drifts badly and is seriously influenced by the wind. At short ranges the Navy rifle has more penetration than either the Mauser, Krag or Springfield. At mid-range the Krag and Mauser will lead, while at 1,500 yards the old 45 Springfield with its 500-grain bullet will come to the front.—EDITOR.

While hunting last season with a 47 caliber Snider Enfield, I put a bull moose from his bed at 40 yards, and planted a ball behind the shoulder before he had run 10 yards. He staggered a little, but rallied and was making straight away, about 100 yards off, when I put a ball in his flank, lodging in the shoulder, and down he went. As I approached he arose and started to run. I fired again, the ball passing through the shoulder blade, but not until a fourth bullet caught him in the neck, as he was getting out of sight, did he give up. Why did not the ball in the shoulder paralyze him and make him drop?

H. G. Finch, Lidstone, Manitoba.

ANSWER.

Evidently the bullet neither disabled the leg or passed through the heart and the shock was not sufficient to stop the moose. There is nothing unusual in this; animals frequently travel miles after being shot in the shoulder.—EDITOR.

Please tell me through RECREATION of a satisfactory light load for the 25-35 Winchester rifle, other than the factory miniature loads. I should like to do considerable practicing, but 75 cents a box of 20, counts up rapidly; besides, that load is too powerful for small game.

R. G. Joslin, St. Ignace, Mich.

ANSWER.

As far as I know, the only reduced charge for this cartridge, that gives good results is 5 grains by weight, or 5-16 dram by black powder measure, of Laflin & Rand sharpshooters' powder, with the regular bullet. If you will obtain a number of factory loaded miniature shells with the crease, you could reload them a limited number of times with the reduced charge referred to, using, of course, the same nitro primer and seating the bullet the same as in the regular factory miniature.—EDITOR.

The new service rifle which is being made up at the Springfield arsenal, and with which the army and navy are to be supplied as rapidly as possible, is said to be developed from the Krag-Jorgensen, since it possesses all the good points of that arm, with certain important improvements. The rifle will, however, be called the Springfield, model 1902. It will be made in 30 caliber, but the cartridge will carry a slightly heavier charge of powder than the old one. It is said that this new cartridge has developed an initial velocity of 2,200 feet a second, and that it has an effective killing range of 4,500 yards. The barrel of the new rifle is made of cupro-nickel, which will stand a higher pressure than the material used in the Krag-Jorgensen. The new rifle is about ¾ of a pound lighter than the old one, and with the superior mechanism, its operation is much easier and more rapid.

Some correspondent advised using emery to clean a rifle. That, of course, would cut a rifle out and ruin it. Common crayon chalk, pulverized and mixed with black oil and elbow grease, will make the inside of a rifle look like a new silver dollar, and will not injure it. Why would not vaseline be better than most of the oils we use for gun cleaning? Should like to hear from persons who have used it.

F. Q. Rutherford, Chihuahua, Mexico.

The following recipe for a mixture for cleaning the barrels of guns using nitro powder may be of use to some readers of RECREATION:

Vaseline oil, 4 parts; French turpentine, 1 part; naphtha, 1 part.

Saturate a rag with mixture and use in usual way. Then wipe dry and polish.

J. D. B., Colorado Springs, Colo.

Kindly tell me if you think the Winchester 30-40 strong enough for the big game of the East, such as lions, rhinoceros, elephants, etc.? Do you consider the Lee straight pull gun better for big game than the 30-40?

Geo. Squire, New York City.

ANSWER.

The Winchester people, to whom I referred your first question, say they have no personal knowledge of the use of their 30-40 guns on lions, rhinoceri and elephants, though they have heard that their 30-40 cartridges and the corresponding Mauser cartridges have proven successful on these animals, especially on lions.

The 30-40 rifle has a muzzle energy of 1,950 feet, whereas the 6 m-m navy has a muzzle energy of only 1,630 feet. The difference is not great, but is in favor of the 30-40.—EDITOR.

What is the best way to load the old style army 44 caliber revolver, using percussion caps?

E. A. Cockey, Wilkinsburg, Pa.

ANSWER.

Use the special percussion cap for muzzle loading revolver, a full charge of black powder and the regular grooved bullet. Dupont's rifle powder f. f. g. should give good results. A finer grain might sift into the nipple causing hang-fires, and a coarser grain would not burn perfectly. The little powder flasks that were issued to officers during the Civil War are handy for measuring the charge. The grooves of the bullet should always be filled with lubricant, and both powder and ball should be firmly pressed home with the rammer attached to the barrel of the revolver.—EDITOR.

I have used several different kinds of rifles but think for all around use the 30-30 Winchester is the best. It is light and effective. I have used a 32-40 single shot Stevens and think it fine for small game. I have also used 7 m-m and 7.65 m-m Mauser military rifles. They are powerful weapons and accurate, but the Lee will beat either for range or penetration. I have seen both 32-40 and 30-30 Marlin rifles stick. When worked fast the Marlin would make an excellent crowbar. I am now using a .303 '95 model Savage, fitted with Lyman sights. It is powerful and accurate. Have not as yet used it on game, but think it will kill any found on this continent. It has as much smashing effect on a target as a 50-70 Remington. The Winchester is, in my opinion, the best rifle made.

Winchester, East Helena, Mont.

Will some reader please tell his experience with a 16-bore at the trap and the best load to use.

E. J. S. Miller, Concord Jct., Mass.

ANSWER.

On general principles 10 and 12 gauge guns are better for trap shooting of all kinds than a 16 gauge. A full choked 16 gauge gun of sufficient weight would be a much better trap gun in the hands of an expert than an open bore 12 gauge gun; but everything being equal, the 12 gauge will give better results. The usual load for an ordinary 16 gauge is 2½ drams black powder, measure of bulk nitro powders, with one ounce of shot. This is all the regular length shell will hold properly with the necessary wadding.—EDITOR.

Can you tell me the range, penetration, and velocity of the Harrington and Richardson .22 caliber Premier, with short cart-

ridges? Also of Hopkins and Allen, same caliber.

Have been reading RECREATION 2 years and can not get along without it.

Chas. J. Green, New York City.

I have not tested either of the revolvers in question but should judge that the effective and accurate range would be 50 feet, and the penetration at 20 feet from the muzzle 2 inches of dry pine boards. For the velocity there are no figures obtainable. The foregoing applies to a revolver with 4-inch barrel. Longer barrels are more powerful and *vice versa*.—EDITOR.

Please tell me if there is a Chichester Arms Co. and if so where? I have a 22-caliber target pistol, barrel 7 inches long, and on it the word "Chichester" is engraved. I have broken the hammer and wish to get a new one.

Jno. H. Henke, Steubenville, O.

ANSWER.

The Chichester Arms Co. has gone out of business, having disposed of its entire stock some time ago to the Hopkins & Allen Arms Co. I suggest that you address these people at Norwich, Conn. In case they do not have the part you desire, the only way you can replace it is to have one made to order by a competent gunsmith.—EDITOR.

I find in March RECREATION a query by G. C. G., which I can answer. I have a 20 gauge Parker, $50 grade, 6¼ pounds, 28 inch barrels. I wanted a trap target load, and after trying all powders and loads I found 18 grains Ballistite powder and ⅞ ounce chilled No. 7 shot, hand loaded by Jespersen & Hines, in Repeater ¾ base shells, gave best results. With this load, shooting from the 16 yard mark, I have broken 24 out of 25, 9 out of 10 and 13 out of 15. The pattern of this load, while of course smaller, is equal in regularity and penetration to that made by my 12 gauge loaded with 25 grains Ballistite and 1⅛ ounces of shot.

C. A. Phillips, New York City.

The Winchester pump is the gun of guns when price, durability and reliability are to be considered. It is a strong, hard, close shooter, and the best gun for the money made. I have made patterns of 75 to 85 per cent in a 30-inch circle at 40 yards. Its penetration is as good as that of my big 10 gauge Syracuse with a much larger load. I use Winchester leader shells, loaded with 3¼ drams Dupont smokeless, one nitro card wad, one white felt, one black edge wad, and 1¼ ounces shot; number 5 for ducks and 8 or 9 for snipe.

J. E. Kirkbride, Boulder, Colo.

I have a Geo. Fisher gun with 32 inch barrels. It is muzzle-heavy, and I think it would balance better if barrels were shortened 2 inches. Would you advise me to have that done? Could the lever be changed from the left side to the right?

W. Wookey, Waterbury, Conn.

ANSWER.

If the barrels are choked, as is probable, it will greatly injure the pattern to cut them down. Consult a good gunsmith in regard to the alterations you suggest.—EDITOR.

Do you think a 32 caliber revolver would prove an effective weapon in a hand to hand fight with a grizzly?

E. E. Vance, St. Joe, Mo.

ANSWER.

A grizzly may live hours with several 50 caliber express bullets in his body, even if they are so placed that each would in time prove fatal. It would be absurd to attack a bear with a 32 caliber revolver. Of course a lucky shot might prove instantly fatal, but in such a fight the odds all favor the bear.—EDITOR.

I have a '92 model, round barrel, half magazine 32-20 Winchester. Though not so accurate as the 22 long rifle, it has proven reliable at 100 to 300 yards. As a small game gun it is gilt edged. I shall use it this fall for deer hunting and expect it to prove effective with split bullets. Of course one must be able to put a bullet in the proper spot if he is to kill deer with so light a cartridge.

Will someone tell me how to make a good pack basket harness?

Le Reynard, St. Johnsbury, Vt.

I have used a '97 model Winchester pump gun with great satisfaction. It never failed to extract empty shells. It works best with Repeater shells loaded with 2¼ or 3 drams of Schultze and 1⅛ ounce shot. I never had a 22 rifle that did better work than a 1900 model Winchester, listing at $5. I find the '92 model, 25-20 Winchester repeater an excellent gun. For reloading I use 17 grains ffg and 86 grain bullet, loaded with Ideal tool No. 4.

Wm. Dyer, Stamford, Conn.

Would not a new gun of given gauge, choke and length of barrel, shoot better than a similar gun with barrels slightly swelled from overloading?

J. H. Ayle, Grandville, N. Dak.

ANSWER.

The loss in penetration or velocity due to the slight enlargement of bore would be inappreciable and could not be noticed

in shooting at game. In theory, the difference would be in favor of the true gauge barrel.—EDITOR.

My favorite guns are both Winchesters; one a '97 model, cylinder brush gun, and the other a 22 caliber. The Marlin is a good looking and hanging gun, but its action is N. G. I know this from experience, and that Peters' shot gun ammunition ranks in the same class. We are all anxious to see that Savage 22. It ought to be good, and if you will send me a few copies of RECREATION I will try for the first one you get. Lee Mann, Saginaw, Mich.

I am much interested in the controversy concerning the superiority of the 30 over the larger calibers. Should like to hear more of the 25-25, 32 Ideal, 32-40 and the 25-10 Stevens cartridges. In single shot rifles I am wedded to the Stevens, especially the Ideal, for it is so durable and accurate. The reversible link is a special point in favor of Ideal rifles. Would the 32-40, with mushroom bullets, answer for deer? V. J. N., Dubuque, Ia.

Kindly tell me if there is a book published on the modern shot gun, telling the range and penetration of the 12, 16 and 20 guage, and for what game each guage is adapted.

Wm. Row, Jr., Paterson, N. J.

"Modern Shot Guns," by W. W. Greener, while not a recent publication, is one of the best on the subject.—EDITOR.

I have a Parker hammerless, bought 2 seasons ago. It has 30-inch barrels and puts 252 No. 7 shot in a 30-inch circle at 40 yards. It is the best duck gun I ever saw. When shooting quail I use 2¾ drams smokeless powder and 1 ounce No. 9 chilled shot, with spreaders in the right barrel.

Thomas P. Neet, Versailles, Ky.

I have a 32 Stevens of the tip-up pattern which is a fine woodchuck gun. It can be depended on to put 8 out of 10 shots in a 6-inch circle at 100 yards. Is there a single shot Winchester, 32 Ideal caliber? If so, what is its record for accuracy? Of course few readers of RECREATION think much of Marlin. L. E. Hinman, Ravenna, O.

I have been hunting 25 years, using until 3 years ago a '73 model 44 Winchester. I now have a .303 Savage, a repeating shot gun and a 44 caliber revolver. The 30-40 is all right in its place, but should be confined to military use and not sold to tenderfeet to hunt game and kill men with.

Kit Lendie, Brooklyn, N. Y.

I shoot a Winchester repeating shot gun, model '97, take down, 26-inch barrel, modified choke, which is too open for ducks. I am going to get an extra barrel, and have almost decided on a 28-inch. Will that length shoot as hard and close as a 30 or 32 inch, using smokeless powder?

W. D. Trout, Cambridgeport City, Ind.

Would advise A. G. Burg, or anyone else who wants a thoroughly reliable medium priced gun, to get an Ithaca. I have a 12 gauge, 7¾ pound, 32-inch wide barrel, Ithaca, that I have been using steadily over 6 years. It is just as tight as when new, and a firstclass shooter.

R. G. Price, E. Sherbrooke, P. I.

I join in the chorus of criticism on the Peters people and their goods. Recently I have been using the Winchester, U. M. C. and Peters' cartridges in a 22 rifle. I tried both short and long of all makes, and found Peters' goods far less satisfactory than the other 2.

A. O. Garrison, St. Louis, Mo.

I should like to hear through RECREATION from someone who has used the Luger automatic revolver on big game. Would it answer in the place of a rifle to kill game for food where game is plentiful and can be approached within 50 to 100 yards? A. L. Taber, Santa Ana, Cal.

C. R. Benjamin asks how the 30-30 compares with the 32-40 as a deer gun. Have never used a 32-40, but think the 30-30 Winchester the best gun for small game. For elk I want a 30-40, soft nose; for sheep, a .303 Savage.

Felix Alston, Irma, Wyo.

I should like to communicate with readers of RECREATION who may have ordered rifles from John H. Blake, formerly of New York city, but now of Batavia, N. Y., and who may not have received same. Address, Attorney, care RECREATION.

Will someone who has used the 25-20 and the 25-25 Stevens tell me which is the best for all around shooting? Would a 25-20 kill a deer at 150 yards?

C. I. White, Rochester, Pa.

Although we shall have plenty of game and shall shoot many shells, Peters will not sell many here and Marlin guns will be as hard to find as heretofore.

J. W. S., York, Neb.

Will someone who has used the Mauser automatic pistol please tell me if it is better than a Colt revolver, and if so, why?

M. L. Meason, Lesser Dog Creek, B. C.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

BOBCAT OR LYNX?

Recent numbers of RECREATION proved of more than usual interest to me through containing articles on the lynx and the bobcat.

I think, however, some of the writers have confused 2 different animals. The author of "The Bobcat's Banquet," certainly makes a mistake when he calls the animal represented by his excellent photographs a lynx, a wildcat, and a bobcat, as if the 3 were names for the same animal.

A lynx and a bobcat are different animals. Their color, habits, etc., are much the same, while their shape is far different. A lynx is long bodied, long legged; a bobcat is short legged and compactly built. A lynx has large feet entirely covered with hair, making tracks so large that he is sometimes followed by a hunter who thinks he is pursuing a bear. He soon finds out his mistake, for the lynx has a habit of walking on every log and pole in his line of travel. When the hunter sees his supposed bear tracks extending the length of a 4-inch pole 2 or 3 feet from the ground, his ardor cools, and he damns the "lucifer," for so he pronounces "loupcewier," the lynx's Canadian name.

Another difference is the shape of the ears. Those of the bobcat are short; those of the lynx are longer and have a tuft of long hairs on the tips. The bobcat is a heavier animal than the lynx, sometimes weighing over 40 pounds. I have seen one tip the scales at 45, but he was an unusually big fellow. The fur of the lynx is far better than that of the bobcat, and is worth 3 or 4 times as much.

The question as to which animal the writer of the article means would be hard to answer from the description given, but fortunately we have the photographs to aid us, and a study of them will help us decide. Examining the pictures we see, in all but the first, a compact, muscular animal. The first photo was taken at the beginning of his feast and that perhaps is why it shows a less chunky animal. We see no long hairs on the ends of his ears, which proves beyond doubt that he is a bobcat; not a lynx.

In Maine, lynx are not abundant at present, though there are some in the Northern part. I never heard of their killing many deer; but the bobcat, which is far more numerous, kills hundreds every year. Some men claim that most of the deer found eaten by cats were killed by hunters; but on the snow you can see where the cat crawled up and killed his prey before it could rise from the ground. At other times he will spring from a tree on to the hapless deer and bear it to the ground. The deer found dead are generally does and fawns, though often an old buck falls victim to the bobcat.

W. H. Young, Whitefield, N. H.

ANSWER...

A general view of the genus *Lynx* as it exists in North America, reveals the fact that the popular name "lynx" is a perfectly correct designation for all the animals commonly called bobcats. Mr. Young seems to consider that the name "lynx" applies only to the well known Canada lynx (*Lynx canadensis*), which he correctly describes. On the contrary, the name is as generally and as correctly applied to the species scientifically designated as *Lynx rufus*, and long known in all works on natural history as the "bay lynx," or "red lynx." In some portions of the United States, it is also called the wildcat. This is the species represented in the "Bobcats' Banquet," in the June number of RECREATION. The name bobcat, as applied to *Lynx rufus* and its varieties, is now coming into general use throughout the United States. It is applied indiscriminately, not only to the well known *Lynx rufus*, but also to the many sub-species of that animal that are found in Florida, Texas, Arizona, Idaho, Washington, and farther North.

Elliot's "Synopsis of the Mammals of North America" (1901), enumerates the following species:

Lynx canadensis, of Canada generally; one sub-species in Alaska and one in Newfoundland.

Lynx rufus, of central North America, and 9 sub-species, inhabiting the Western half of North America as far South as Mexico.

Lynx gigas, of Nova Scotia, described in 1897; resembles the bay lynx more closely than the Canada lynx.

All these, wherever found, are lynxes, just as much as the Canada lynx; but, as stated above, all those coming under *Lynx rufus*, and its 9 sub-species, are generally spoken of to-day as bobcats. The Canada lynx is easily recognized by the long, black pencil of hair rising from the tip of each ear. Some sub-species of the bay lynx show a small ear-pencil, others none; but there is no mistaking the differences between the 2 species. The so-called bobcats and wildcats are, therefore, lynxes.

W. T. H.

PRACTICAL GAME RAISING.

Lewisburg, O.

Editor RECREATION:

Someone asked in a recent number of RECREATION, what becomes of the horns of moose, deer and elk after they fall off. I have hunted in many parts of the United States and never, save once, found horns that were not badly gnawed. I think they are devoured chiefly by mice. I raise elk and deer. Last spring I could not, for several days, find the horns dropped from a large elk. When I did find them, the points were badly eaten, and the fact that they lay in an open field convinced me they had been eaten by field mice.

In May RECREATION I noticed an interesting account of a hunt in the Hell creek country. I have had the pleasure of hunting there and it is the only place where I ever found any deer horns in good preservation. I also found there a mountain sheep whose horns measure 16 inches at base, and a large mule deer with as fine antlers as can be shown by anyone. I had both mounted, and they stand to-day in my home.

Have had experience in raising quails and pheasants. No one can keep his birds on his own territory unless he offers them inducements to remain. Two things, at least, are essential, food and water. The easiest way to feed these birds in winter is to plant a patch of mixed broom corn and cane. Break the cane and corn down about 2 feet from the top, thus making both cover and feeding grounds. If you do this, and forbid shooting on your land, you will have quails and pheasants in abundance. I tried the plan one year ago and it worked to perfection. This year I have 2 broom corn patches on different farms, and some of my neighbors are doing as I did. We have hundreds of Mongolian pheasants in our neighborhood and in a few years expect to have thousands.

The question is often asked, "Can quails be domesticated?" One of my neighbors has Bob White quails that run and roost with his chickens. Last year I raised 12 quails and they were just as tame as young chickens until I lost track of them through changing my residence.

Doubtless there are many people who would like to raise elk and deer did they know how easy it is to do. For their benefit I offer a few suggestions.

Select your territory and let it be a dense thicket or an open woodland with some cleared ground adjoining; that is, if a small park is in view. My deer and elk are fond of alfalfa clover. I have an enclosure of 18 acres, with only a few trees in it, in which I keep 6 elk, 3 deer and 2 horses. A portion of the lot is in timothy and there are about 3 acres of native blue grass. My elk and deer feed more frequently on the clover than on either blue grass or timothy. No one should attempt to raise deer in large numbers unless at least one elk is kept with them. The worst enemy deer have is the dog, and woe unto a dog if he gets in a park where there is an elk. Build your fence with Page woven wire.

The best and cheapest food for elk in winter is corn fodder. The best corn fodder can be made by sowing sweet corn or drilling it like wheat. Common corn, cut up the ordinary way, makes good fodder for elk; deer will not eat it. The latter should be fed on either corn or bran or both. There may be a better food for deer that I am not aware of; if so, I should be glad to hear of it.

Where can I buy a pair of mule deer and a pair of fallow deer?

F. J. Wilson.

HARRY'S CHIPMUNK.

As I write I am conscious of being watched by the sparkling brown eyes of the children's latest pet, a ground squirrel. We have had him several days and he seems quite content. The children tacked screen wire over the top of a box; and this, turned on one side, gives us a good view of him. A cigar box in one corner of the cage serves as a den into which he can retreat when tired of our company.

Just now he is curled up with his head resting on his fore paws, exactly like a dog, while his bushy tail is spread gracefully around his hind feet. He has the cover of a baking powder box for a water cup; and sometimes, when in a playful mood, he takes the edge of this little tank between his teeth, and running backward, pulls it to one end of his cage, so he can have the place it occupied to run around in without danger of jumping into it and wetting his feet. That is a calamity to be avoided, if possible, to judge from the pains he takes to dry his feet when by accident he has stepped in the water.

The children give him shelled corn, of which he eats only the heart of the grain. He is fond of walnuts, butternuts, etc., with which the children keep him abundantly supplied. Of course, they are always trying him with everything they can think of in the eating line. One day they gave him some lean meat, cooked. He ate it as though he had been raised on it. Another time they gave him some raw meat; he would not eat it, but rooted it all over his cage, just as a pig might do, and finally pushed it down a crack.

Sometimes we let him out in the sitting room, first closing all the doors. He

scampers around the room, runs up the window curtains and will climb to the top of any piece of furniture on which he can get a foothold.

He carries his bushy tail in a straight line with his body when running. When put back in his cage he seems glad to get home. A never ending source of amusement to the little ones is to watch him wash his face. This he does every time he gets through eating, and as they are constantly feeding him he performs his ablutions with great frequency. Harry looks on and remarks grimly that he is glad he is not a chipmunk. His antipathy to water is proverbial, and to him cleanliness is only vanity and vexation of spirit.

The squirrel begins by licking his paws. Then he rubs them together carefully, and again licking his paws, he commences on his face and head, which he rubs with great rapidity, whirling his paws over his ears as if he were taking a regular shampoo. He finishes by smoothing his breast and then settles for a nap.

He is an amusing pet, but sometimes he seems to want to get out; and Harry says he will soon carry him back to the woods and give him his freedom.

A. M. M., Vernon, Ia.

SOME WISCONSIN BIRDS.

Milwaukee, Wis.

Editor RECREATION:

May 11, while visiting Forest Home cemetery, the finest near the city, I noticed a robin's nest, apparently just built, but empty. The eggs had either been taken out, or the bird had not yet laid any therein. The nest was in a crevice of a headstone, about 3 to 4 feet from the ground, the stone being in shape of a tree stump, and being about 5 feet high.

May 10 we had a severe snow storm here, but the martins and tree swallows did not mind the storm, staying inside their houses, the temperature 36 degrees. Robins and purple grackles fed in the yard, the latter on bread thrown out to them.

My pair of bluebirds are again all right. The box they are in is not over 6 feet from the ground, and I can easily reach the entrance with my hand. This seems too low for the English sparrows, who give the house a wide berth.

Two purple martins arrived that must have been here last year, as they at once made themselves at home. In fact, one of them had a severe fight, in one of the rooms of the birdhouse, lasting fully 20 minutes, with a martin that had been here over 30 days.

It does not appear to be generally known that the male martins do not get their purple coat until the second year. Neltje Blanchan describes the male martin as purple, the female grey. This is an error, as all the yearling males are also grey, differing only slightly from the females. Last year I had 5 pairs of martins, none of the birds being purple, showing the certainty of grey male birds. The males generally have darker feathers about the head, and a few prominent dark feathers on the breast. Otherwise they look like the females. The purple ones know the young males very well, however, and many a fight have I seen between them. The males will not fight with the females, but will allow themselves to be pecked by their mates without retaliating.

A house wren visited me this year, and a dozen cedar waxwings. Robins are numerous throughout the city, nesting on shade trees.

Frederick Wahl.

RATTLESNAKES AND ROADRUNNERS.

The old story about the roadrunner fencing in a sleeping rattlesnake with cactus was retold in March RECREATION. When I first heard the story some years ago, I doubted that the rattlesnake could be caught in that way, and asked old settlers, Mexicans and Indians, if they had ever seen it done or knew of anyone who had. All said they had heard the story from somebody who had heard it from somebody else; none had seen evidence of its truth.

Rattlesnakes live among cactus, and glide along where the ground is thickly covered with prickly pear and chollas balls of the most spiny kind. If fenced in by chollas it would not disturb the reptiles in the least; they could easily push it aside or glide over it, without suffering any inconvenience, as their skin is not easily penetrated. It would be impossible for the roadrunner to use the prickly pear lobes. They are not shed, the bird never could break them off, and could not lift one if he did.

A rattlesnake will sometimes, when in anger or agony, bite or grab a part of his body. He does not use his fangs or striking teeth, but instead, the small seizing teeth of both jaws, and closes his mouth in so doing. When striking, his mouth is wide open, and the fangs are thrust forward from the upper jaw.

I have never heard roadrunners chatter and had always believed them voiceless. One day last summer while sitting on a hillside, a roadrunner came through the sage brush to within a few feet before discovering me. He bristled up his feathers, pointed his tail straight up and uttered a sound nearly like the note of a cuckoo only more harsh. This he repeated several times, getting a little farther away

each time. The roadrunner, or paisano, as he is called by Californians, is becoming scarce. He is never killed to eat, but is shot by thoughtless hunters and tourists merely that they may say they have killed a roadrunner.

C. W. Gripp, Pacific Beach, Cal.

HOW TO BEGIN SKUNK FARMING.

Will Mr. Ramsey McNaughton please tell me the best and cheapest way to build a fence to keep skunks in? How high should such a fence be? I have a fine place for skunks, on the side of a sloping hill. I thought of fencing in 4 acres, one acre to be cleared land and 3 in small trees and shrubs and some small rock. My plan is to set posts 6 or 8 feet apart, set slab rock in the ground between the posts, with a level top on the rock and nail planks 5 feet long up and down to come within ½ inch of the rock. This would permit the skunks to roam in the 3 acres of woodland and eat such vegetables as I should plant in the acre of cleared land. I should turn loose in the same enclosure 10 or 15 Belgian hares. This would give the skunks meat when they might wish to catch the hares, as the Belgians increase fast. Can you name some paper or book on skunks?

J. H. Colter, Georgetown, Ohio.

ANSWER.

Skunk farming has been proven practical and profitable, but like every other business, to comparatively few; so I beg of you in all friendliness not to go into it until you try a small pen of half a dozen and catch them yourself. Do not buy them, or spend any money on them. Select about 100 feet square of rocks and brush, with a spring or brook within it if possible, and with some abandoned old building on it for the skunks to make a warm home under. Enclose all in a 5 foot poultry wire fence, sunk 18 inches in the ground. Feed the skunks twice a day at some regular time, whatever quantity they eat up clean. Do not leave an excess of food around. If you grow fond of these gentle, tame and beautiful little creatures, which are never necessarily offensive, and if they thrive, there will then be time enough to go into the business further.

RECREATION is likely to have a careful new article on "That Skunk Question" in an early issue. R. Macnaughton.

NATURAL HISTORY NOTES.

While driving I noticed a bird about the size of a common hen turkey, with somewhat longer legs and a bill about 4 inches long. The bird resembles in color a brown thrush on the back and wings. Being at a distance of 100 yards or over, the bird running away from me, I could not discover any other colors. I jumped out of the buggy and raised the bird. In its flight and after alighting 200 yards away in a swampy place, it cackled, or croaked, like raven. The bird seemed to favor the low land or marshy ground. In all my travels in the upper and lower peninsula of Michigan, I never saw its like. Can you give me any information as to what it is?

P. P. Chase, Ishpeming, Mich.

ANSWER.

From the description given, I am unable to identify the bird, nor can anyone to whom I have referred the matter even give a good guess as to what the bird was. Further information is necessary to identification.—EDITOR.

I agree with J. C. Warren that the tapping sound under water, about which Mr. Covert asks, is caused by fish. I do not, however, think the noise is made while the fish are feeding. I have heard the sound over 30 years, and have investigated dozens of times, always with the same result. The atmospheric conditions are always the same—warm, muggy, no wind, and the drift stationary, or almost so. The sound comes from beneath the drift at the surface of the water. I am positive the fish comes to the surface in the shade and sticks his nose against the drift, the noise being produced by suction in an effort to take in a little air. In every case in my experience the common black sucker made the sound. I can go any day, with above mentioned favorable conditions, where the sound can be heard.

W. W. Walsingham, Ellsworth, Wis.

Will you kindly advise the period of incubation for hatching young quails? I have often heard statements on the subject, differing as to the time, some claiming quail eggs require 13 days' hatching, others 18 days, and still others 21 days.

D. P. Faust, Shamokin, Pa.

ANSWER.

One of the California quails in the New York Zoological Park has just hatched a brood of 14 chicks in 21 days. I think that is the period for American quails generally.—EDITOR.

Please tell me what is proper food for a young crow? I caught one apparently just after he had left the nest. He does not seem to relish bread and milk.

Harold Bowditch, Cambridge, Mass.

The proper food for a young crow is mashed potatoes and hard boiled egg, chopped and mixed with a little water into a stiff paste. Feed about every hour, while the bird is young.—EDITOR.

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Hillsdale,	C. A. Stone,	Hillsdale.
Lake,	John Trieber,	Peacock.

LOCAL WARDENS IN VIRGINIA.

Mecklenburg,	J. H. Ogburn,	South Hil.
King William,	N. H Montague,	Palls.
Smythe.	J. M. Hughes,	Chatham Hill.
King & Queen,	R. D. Bates,	Newtown.
Louisa,	J. P. Harris,	Applegrove.
Henrico,	W. J. Lynham,	412 W. Marshall. Richmond.
East Rockingham,	E.J.Carickhoff,	Harrisonburg.

LOCAL WARDENS IN WYOMING.

Fremont,	Nelson Yarnall,	Dubois.
Uinta,	S. N. Leek, F. L. Peterson,	Jackson.
Carbon,	Kirk Dyer,	Medicine Bow.
Laramie,	Martin Breither,	Cheyenne.

LOCAL WARDENS IN TENNESSEE.

Sumner,	W. G. Harris,	Gallatin.
Stewart,	John H. Lory,	Bear Spring.
Robe tson,	C. C. Bell,	Springfield.
Montgomery,	P. W. Humphrey,	Clarksville.
Madison,	H. T. Rushing,	Jackson.

LOCAL WARDENS IN NEBRASKA.

Hall,	E. C. Statler,	Grand Island

LOCAL WARDENS IN NEW HAMPSHIRE.

Cheshire,	S. C. Ellis,	Keene.
Sullivan,	G. A. Blake,	Lempster.
"	J. W. Davidson,	Charlestown.

LOCAL WARDENS IN VERMONT.

Rutland,	Wm. J. Liddle,	Box 281, Fair Haven
Windsor,	F. A. Tarbell,	West Bridgewater.
Orleans.	E. G. Moulton,	Derby Line.
Essex,	H. S. Lund,	Granby.

LOCAL WARDENS IN ILLINOIS.

Rock Island,	D. M. Slottard.	12th Ave and 17th St., Moline.
Iroquois,	J. L. Peacock,	Sheldon.

LOCAL WARDENS IN OKLAHOMA.

Kiowa and Comanche Nation,	A. C. Cooper,	Ft. Sill.

LOCAL WARDENS IN IOWA.

Clinton,	D. L. Pascol,	Grand Mound.
Pottawattamie,	Dr. C. Engel,	Crescent.

LOCAL WARDENS IN WASHINGTON.

Okanogan,	James West,	Methow.
Stevens Co.,	Jacob Martin,	Newport.

LOCAL WARDENS IN UTAH.

Washington,	S. C. Goddard.	New Harmony.

LOCAL CHAPTERS.

Albert Lea, Minn.,	H. A. Morgan,	Rear Warden.
Angelica, N. Y.,	C. A. Lathrop,	"
Augusta, Mont.,	H. Sherman,	"
Austin, Minn.,	G. F. Baird,	"
Austin, Pa.,	W. S. Warner,	"
Boston, Mass.,	Capt. W. I. Stone,	"
Buffalo, N. Y.,	H. C. Gardiner,	"
Cammal, Pa.,	B. A. Ovenshire,	"
Champaign, Ohio,	Hy. F. MacCracken Urbana.	"
Charlestown, N. H.,	W. M. Buswell,	"
Ch yenne, Wyo.,	J. Hennessy,	"
Choteau, Mont.,	G. A. Gorham,	"
Cincinnati, Ohio,	B. W. Morris,	"
Coudersport, Pa.,	I. L. Murphy,	"
Cresco, Iowa,	J. L. Platt,	"
Davis, W. Va.,	J. Heltzen,	"
Dowagiac, Mich.,	W. F. Hoyt,	"
East Mauch Chunk,	Pa., E. F. Pry,	"
Evansville, Ind.,	F. M. Gilbert,	"
Fontanet, Ind.,	W. H. Perry,	"
Ft. Wayne, Ind.,	W. L. Waltemarth	"
Great Falls, Mont.,	J. M Gaunt,	"
Heron Lake, Minn.,	K. C Buckeye,	"
Hollidaysb'g, Pa.,	H. D. Hewit,	"
Hopkinsville, Ky.,	Hunter Wood,	"
Indianapolis, Ind.,	Joseph E. Bell,	"
Jerome, Ariz.,	Dr. L. A. Hawkins,	"
Johnsonburg, Pa.,	W. J. Stebbins,	"
Kalispell, Mont.,	John Eakright,	"
Keene, N. H.,	F. P. Beedle,	"
Kingfisher, Okla.,	A. C. Ambrose,	Rear Warden
Lake Co., Ind.,	Dr. R. C. Mackey,	"
Lawton, O. T.,	Marion Miller,	"
Logansport, Ind.,	E. B. McConnell,	"
Ludington, Mich.,	G. R. Cartier,	"
Mechanicsburg, Pa.,	Dr. J. H. Swartz,	"
Minturn, Colo.,	A. B. Walter,	"
New Albany, Ind.,	Dr. J. F. Weathers,	"
New Bethlehem, Pa.,	Isaac Keener,	"
Penn Yan, N. Y.,	Dr. H. R. Phillips,	"
Princeton, Ind.,	H. A. Yeager,	"
Reynoldsville, Pa.,	C. F. Hoffman,	"
Ridgway, Pa.,	T. J. Maxwell,	"
Rochester, N. Y.,	C. H. McChesney	"
St. Paul, Minn.,	O. T. Denny,	"
St. Thomas, Ont.,	L. J. Hall,	"
Schenectady, N. Y.,	J. W. Furnside,	"
Seattle, Wash.,	M. Kelly,	"
Syracuse, N. Y.,	C. C. Truesdell,	"
Terre Haute, Ind.,	C. F. Thiede,	"
The Dalles, Ore.,	C. B. Cushing,	"
Walden, N. Y.,	J. W. Reid,	"
Wichita, Kas.,	Gerald Volk,	"
Winona, Minn.,	C. M. Morse,	"

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W. H. Smith, Bryn Mawr, Pa.
E. B. Smith, Bourse Bldg., Philadelphia, Pa.

There are thousands of men in the United States who should be life members. Why don't they join? Will someone please take a club and wake them up?

A GOOD WORKING PLAN.

Clarksville, Tenn.

I enclose herewith a letter received from a gentleman in East Tennessee, also copy of my answer to his letter.

The publication of these 2 letters in RECREATION might set other people to work and the membership of the League might thereby be increased.

P. W. Humphreys.

Knoxville, Tenn.

P. W. Humphreys, Clarksville, Tenn.:

I see your address in June RECREATION as one of the members of the L. A. S., and I write to ask you if we can not in some way get the Legislature of our State to pass a law forbidding the sale of game. Tell me your candid opinion in this matter. If there is any way to stop this market hunting let us try to do it.

H. Woodward.

Clarksville, Tenn.

Mr. H. Woodward, Knoxville, Tenn.:

I have been for several years much interested in this matter of better laws for protection of game and fish in Tennessee, as it is a broader question than the average person seems to understand. There is one sure way to accomplish this end, and that is through the League of American Sportsmen. Our only hope is to do the work ourselves, by getting together a rousing big membership in the State. There should be a chapter of at least 50 members in each of the 96 counties. That would give a membership in the State of 4,800. Even if we had only half that number of members, we could secure all the legislation needed; and backed by the co-operation of each member, in a few years our streams would be teeming with fish and our fields alive with game birds. We need uniform game laws; that is, laws applying alike to all counties in the State. At present, almost every county in Tennessee has a game law different from that of some other county, and such lack of uniformity in laws is not conducive to the end sought.

All the laws on earth will do us no good, however, unless we have a large representation of gentlemanly sportsmen and land owners banded together, to see that the statutes are enforced. As you are evidently interested in the matter of game protection, like myself, suppose we undertake the matter of arousing the interest of sportsmen and farmers in this movement.

I am a busy person, and my pocketbook is not overflowing with lucre, but I believe that even 2 persons can start the ball rolling, and finally work up one of the most effective bodies of game protectors in the United States. We especially wish land-owning farmers as members. They would be our best and strongest allies. Moreover, they will be the ones most directly benefited, for as quails and like birds are great insect and weed seed destroyers, with the increase of quails the raising of crops would become easier and surer.

After we have worked up a good membership of the League, we can then secure passage of certain laws, something after the following, which should apply to all counties alike:

Specify all kinds of game to be protected. Make open seasons short. Name penalty at so much a head for killing out of season. Prohibit selling game in the State, or shipping it out of State. Have a State gun license, with reasonable fee per annum, money so derived to be used by State in employing a State game and fish commissioner, who would co-operate with League members; or otherwise use the gun license fees to further game and fish protection. Tax non-resident hunters who come into State to hunt, and use money so obtained for same purpose as gun license. Limit number of game birds, animals, or fishes to be killed or caught in any one day or in the open season. Prohibit night hunting of water fowl or any other game with jack-light or reflector.

This rough outline could, of course, be enlarged and improved on, but it about embraces the gist of what we need.

It will be a good idea for us, as a start, to get the names of 2 or more gentlemen in each county in the State and take up the matter with them direct. We can get any quantity of literature from the League to help out. We can write an appeal, and I believe we can enlist the good will of nearly every newspaper in the State to publish free our appeal to farmers and sportsmen. One good way to get the appeal circulated will be to first get names in each county as mentioned, write them a personal letter, with earnest request that they remail the appeal to some other sportsman or farmer in their county, and so on; the endless chain scheme, you understand. This will make the work lighter on the promoters and is really the only effective plan which I can suggest. Of course some will not remail the letters, but I am convinced that a majority would gladly attend to the matter at once. Tennessee should have not less than 5,000 League members. What do you say? P. W. Humphreys.

IMPORTANT MEETING OF MINNESOTA DIVISION.

At a meeting of the executive officers of the Minnesota division of the League of American Sportsmen, a number of important questions were discussed. The

meeting was held at the Commercial club, and was presided over by D. Lange, chief warden of the Minnesota division. State Game and Fish Warden S. F. Fullerton was present, and addressed the meeting. He pointed out the insufficiency of the present appropriation for the game and fish commission to cover the vast territory contained in Minnesota. The present appropriation is $25,000, but in the opinion of those present it should be at least double that amount in order to carry out the work of that department in the manner necessary to protect the game properly. The matter was discussed thoroughly, and plans were made to go before the Legislature and ask for a larger appropriation.

The League is organized in over 40 States and Territories. Its object is the protection of game and fish, and the preservation of the same for the rational enjoyment of all true sportsmen. There are at present 350 members in the Minnesota division. Charles Cristadoro, of St. Paul; Henry Morgan, of Albert Lea, and C. K. Buckeye, of Heron Lake, outlined a plan for increasing the membership in the State, and after some discussion Mr. Cristadoro was appointed a committee of one to carry out the workings of this plan so as to cover every town and county in the State.

The League has alreadv done much effective work for the rational use of the forests and for the protection of song birds.

It was decided to hold the annual fall meeting and banquet in St. Paul the first Friday in November next.

C. C. Andrews, chief fire warden for Minnesota, spoke on Forestry, and said in part:

"The kingdom of Prussia contains 81,000,000 acres of actual land, being the same extent as contained in the 2 States of New York and Minnesota. Of the land in Prussia 21,000,000 acres, being non-agricultural, is in forest, of which 6,000,000 acres are State forest, yielding an annual net revenue of $9,000,000. It is conservative to say that Minnesota has, in scattered localities, 3,000,000 acres of non-agricultural land, which is now idle and useless, but which, if forested, would, in 80 years, yield an annual net revenue of $3,000,000. Unless we Americans are willing to confess that we are inferior to the Germans, we will soon begin to do something effective in forestry. This State should buy up this waste land and gradually put it in forest, but this can not be done unless the people demand that candidates for the Legislature pledge themselves to specific measures of forestry."

In holding this meeting, the Minnesota division has set a good example for other State divisions. All divisions should hold meetings at least once a year, and still better, twice a year. A great deal of interest could be aroused in this way and many members who are willing to work if shown how would get at it if they could be called together and plans adopted. I heartily commend the example of the Minnesota division to all the others.—St. Paul (Minn.) Globe.

NEW CHAPTER IN PENNSYLVANIA.

These are the happiest days of my life, as I have seen my fondest hopes realized, namely, the formation of a chapter of the L. A. S. here. Only a few months ago I told you we were somewhat discouraged in our attempt to form a branch, after working toward that end the past 3 years. Now we have a chapter with more than 100 members, and expect to greatly increase the membership during the present year. Last fall there were only 3 L. A. S. members here. When the illegal turkey hunters were arrested and convicted, we considered it a good time to attempt to organize a branch, and, as you know, we held a meeting for that purpose. Then was when we got our start, and after that members came thick and fast. Great interest has been awakened in the matter of game and fish protection and we are all determined to have the laws strictly enforced. Eight convictions have already been secured by us, and we are now after some fish dynamiters and illegal bass fishermen. I do not think many hunters or fishermen will violate the game laws in this county, in the future, as the League is fast becoming a power, and has already had a deterent effect on all those persons who formerly paid little or no attention to the laws. Our special officers are constantly on the alert and our members, who live in all parts of the county, are keeping their eyes open, making it dangerous for pot hunters and others of that stripe to do their nefarious work.

Harry P. Hays, Hollidaysburg, Pa.

COMMENDATION BY IMPORTANT MAN.

We have evidences every day of the League's good work. At a recent meeting here plans were mapped out for the coming year, including the concerted effort to get a chapter in every village in Minnesota. When that day comes, the State can abolish the Game and Fish Commission and not appropriate any money at all for game or fish protection, because every member of tne League will be a warden and it will be dangerous for any man to violate the law. Sam Fullerton, St. Paul, Minn.

Mr. Fullerton is the chief executive agent of the Minnesota Fish and Game Commission, and the best game warden any State ever had. It is a great pleasure to get such a message from such a man.—EDITOR.

FORESTRY.

EDITED BY DR B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes thirty years to grow a tree and thirty minutes to cut it down and destroy it.

DISEASES OF TIMBER.

The presence of a dead tree in a forest, or the rotting of structural timber, was a matter of small moment to the past generation, for with such a large supply to draw on, the dead trees could be ignored and the rotten bridge timber could be quickly replaced.

At the present time, however, when we no longer can count on the supply of 50 years ago, it is a matter of concern where the great quantities of timber are to come from in the future, especially when we reflect that the railroads alone use, every year, 100,000,000 ties and the telegraph and telephone companies several million poles. We are not yet face to face with a timber famine, nor are we likely to be there for many years; but it behooves us to consider what is coming, for no country, however large its reserve may be, can look with impunity on the withdrawal of such quantities as indicated above.

How best to conserve the existing supply is the problem with which the forestry of today has to deal. It will develop in several directions. In the first place, it will be the endeavor to cut the existing supply on a more rational and economic basis. A second line of work will deal with the reforesting of denuded areas and the planting of treeless districts; while a third will be directed toward getting an increased service out of the timber after it is cut. Wood, when cut from the tree, decays in the course of time and has to be replaced. By increasing the length of life, so called, of a piece of wood, correspondingly less timber will be cut, and in that way the existing supply will be conserved.

Decay of wood, whether it be in the live tree or the dead wood, is caused by the growth, in the wood, of various low plants called fungi. The fruiting bodies of these fungi are the familiar toadstools, frogstools, punks, or mushrooms found on trees. The punks liberate millions of minute spores, which germinate or sprout in some old knothole, or, in the case of dead timber, on its surface, and grow into the sound wood, thereby causing it to decay. When enough food has been extracted from the wood, one or more new punks form on the outside.

There are many different kinds of fungi growing on trees. Some grow only in the live parts, where they may kill the leaves, the living wood, or the roots. Others grow only in the heartwood of living trees. Some trees are attacked more than others. Forty per cent of the red fir in central Oregon is diseased because of fungus, while the mountain pine of Northern Idaho is so badly diseased that it is often impossible to find a tree entirely free from it. The spores of this fungus are blown about in the forest, and get into wounds caused by the breaking off of branches. Older trees alone are attacked, as it is only in these trees that the branch has formed heart-wood.

One fungus (*Polyporus schweinitzii*) enters coniferous trees through the root. It is the cause of the butt rot of the older trees. The heartwood has turned into a dry, brittle mass, which may extend one to 60 feet up the trunk. Trees affected with this disease usually break off near the ground during storms.

A distinct class of fungi grows only on dead timber. Their spores alight on the outside of a dead tree, and as the fungus grows into the wood it destroys the fiber.

The decay of railway ties, bridge and mine timbers, fence posts, etc., is caused by a number of these fungi. When placed in positions where these timbers are left moist, decay will set in from the outside. This decay makes it necessary to remove timbers frequently, involving the cost of removal as well as the cost of new timber. When one reflects that white oak railway ties last on an average only 8 years, it is easy to understand what enormous destruction these fungi do.

One of the great problems of to-day is to find how the destruction of timber by these fungi may be prevented. The trees in the forest when once attacked can not be saved. In some places where permanent lumbering operations are being carried on it will be possible to cut down all diseased trees, so as to save at least a portion of the tree. This cutting will prevent the formation of fruiting bodies, the spores of which might infect other trees. In Germany, where systematic forestry has been carried on many years, it is difficult to find a diseased tree at this time. As older trees are the ones usually attacked, it follows that when we once know where the danger limit begins, it will be desirable to cut all trees which reach that limit.

The decay of structural timber can be prevented for a considerable period by properly drying lumber before using it. Much is yet to be learned as to the length of time necessary to dry timber so as to increase its length of life.

For many years engineers have tried to find some method for preventing this decay in structural timber by injecting various substances into the wood to kill any fungus which had started to grow in the wood. Those most used are coal-tar, oil, zinc chloride, copper sulphate, and mercuric chloride. Varying degrees of success have been obtained with these materials, depending on the kind of timber used and the climate where the timber was exposed. On some European railroads ties have been made to last 30 years and more. It will be necessary to test all preservatives side by side under similar conditions, in order to determine which one is of the most value. An experiment has been started with this end in view in Southern Texas, where the decay of timber takes place with the greatest rapidity. When a suitable method of impregnation is found, it will be possible to increase the length of life of many timbers several times. The question is one of particular interest to the railroads, as they use such enormous quantities of timber every year. Successful impregnation will mean the utilization of inferior timbers which no one wants now because they decay so fast, such as the tamarack, loblolly pine, lodgepole pine, and swamp oak. When they are preserved, these timbers will be as serviceable as the scarcer and higher priced timbers. This will allow the utilization of vast quantities of timber which are now not used and will admit of a more careful exploitation of the scarcer kinds. Then, again, the trees which are being advocated for tie purposes, the catalpa and eucalyptus, are soft woods. It would be desirable to determine their resisting power to decay; also whether it may not be possible to harden them somewhat. At the present time little is known concerning the rate of decay, the susceptibility of various timbers, the manner of infection of trees, of those problems referred to above. A successful beginning has been made, and it is hoped that with the increased interest in the forests and their products further studies will be possible in the direction of understanding the decaying factors and how to prevent them.—H. von Schrenk, in Forestry and Irrigation.

DESTROYERS OF FORESTS TO BE EXCOMMUNICATED.

In many countries where the necessity for forest preservation has become more pressing and acute than it is at present in Canada, the destruction of the forests is looked on as criminal; but we may perhaps look elsewhere in vain for an example of such a strong deliverance on the subject as that given recently by the Greek Church. National and patriotic as that church is, it takes a deep and proprietary interest in everything that affects the national welfare. A few months ago the Holy Synod of Greece issued an encyclical, which was publicly proclaimed by the government in all parts of the kingdom, in which the utmost wrath of the church was declared on all who indulged in "the unholy practice, abhorred of God," of setting fire to forests; also against all who, knowing others to have been guilty of such deeds, failed to denounce and testify against them, and to aid in every possible way in securing their punishment. All thus guilty through commission or omission are to be "excommunicated from the church, accursed and shut out from forgiveness." "The wrath of God," continues the encyclical, "and the curse of the church be on their heads, and may they never see the success of their labors."

It may be deemed that the Greek Church is unnecessarily autocratic and aggressive in this action, but if it is remembered that Greece has but to lift her eyes Eastward across the sea to look on deserts which were once fruitful and the support of a numerous and prosperous people—when we look with her eyes on her green hills and fair valleys, and realize the desolation and suffering that examples within her own borders also sufficiently demonstrate would follow the sweeping away of the forest covering, we may perhaps realize that a useless destruction of the forest is an act essentially unchristian, and exemplifies the spirit of disregard for others which is undoubtedly deserving of the condemnation of those who speak with authority for the Christian church.—Exchange.

ST. JOHN'S RIVER.

FRANK H. SWEET.

Strange, wayward stream, that leaves the common run,
And scorns the ancient customs of its race,
The waiting sea that circles its birth; lace,
Flowing its waters Northward from the sun,
And ending where most streams would have begun;
Up, and not down, in easy, languid grace,
With stately palms mirrored upon its face,
Exacting tribute rivers, one by one:
Fair, mystic stream, that smiles back to the sky,
And breathes such tropic verdure on its way—
Rich plants and flowers that on its borders lie,
And orange groves that stretch and stretch away;
Gray, swaying moss that makes the zephyrs sigh,
And strange, sweet odors through the night and day.

PURE AND IMPURE FOODS.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH.D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

NUTRITION INVESTIGATIONS.

The subject of food economy, always of vital interest, has acquired increased importance in this country in recent years from the extensive investigations that have been made and are still being prosecuted in connection with and as a part of the work of the U. S. Department of Agriculture and the agricultural experiment stations. There had been considerable investigation of the food of man, as well as studies of the food of domestic animals, before the stations were established. Much of the early experimenting was carried on in connection with physiological investigations or other work connected with the study of medicine. Some of the investigations, however, are directly comparable with more recent work.

The first American investigation on the subject of human nutrition was perhaps that prosecuted by J. R. Young in Philadelphia in 1803. It was entitled "Experimental Inquiry into the Principles of Nutrition and the Digestive Process." The author studied the nutritive value and digestibility of such materials as sugar, gum, beans, and wheat, making experiments with frogs and other small animals. The article summarizes the ideas on human nutrition held at that time.

With the rise of the agricultural experiment stations inquiries into the composition of feeding stuffs and their appropriate use in the nutrition of domestic animals were undertaken, and have since been carried on actively. Later some of the stations undertook similar investigations of the food and nutrition of man. The science of the nutrition of man has so much in common with that of nutrition of animals that a distinction 1 tween the 2 is not easily made, and naturally they have been studied together. These researches have been carried on mainly in the physiological and chemical laboratories of universities as well as of experiment stations.

Investigations on the food and nutrition of man include the study of 2 branches of the subject, which, though quite intimately related and both valuable, are nevertheless of importance in different ways. One branch of the subject comprises a study of the chemical composition of different food materials. This is purely analytical, but is a necessary preliminary to the investigation in the other branch of the subject, which comprises researches into the laws of nutrition and the economic and sociological application of the subject. The former has to do with simply the chemistry of food, while the latter has to do with the physics and chemistry of the nutrition of man, together with its economic and sociological application to people of different classes in different places and under different conditions.

A considerable part of the early work in the study of foods in this country was analytical, along the line of the chemical composition of different food materials. A not inconsiderable amount of such work was done between the years 1840 and 1860, most of which, however, is of interest to-day chiefly from a historical standpoint. The greatest accuracy of the work done at that time was in the determination of the elementary composition and the inorganic compounds of food products.

The growth and development of this subject in the United States has an interesting history. Beginnings were made by physicians and other scientific investigators. Much of the work with which the nutrition investigations of the Department of Agriculture are directly connected and out of which they grew was of this nature, and not a little was made possible only by the generosity of private individuals. Then economic institutions and Government scientific departments became interested, and finally the results of the work proved so valuable and useful that Congress made special appropriations for carrying on investigations in nutrition in different places throughout the country.

The particular inquirv on the nutrition of man, which has developed into the cooperative inquiries now being prosecuted in different parts of the country under the auspices of the Department of Agriculture, had its inception in the study of the chemical composition and nutritive economy of food fishes and invertebrates that was undertaken by Prof. W. O. Atwater in 1877, in the chemical laboratory of Wesleyan University, at the instance of Prof. S. F. Baird, Secretary of the Smithsonian Institution and United States Commissioner of Fish and Fisheries.

The work of which Professor Atwater is in charge, is conducted under the auspices of the Office of Experiment Stations of the Department of Agriculture and is carried out largely in coöperation with scientific and educational institutions and philanthropic organizations in different

parts of the country. Extended series of investigations have been prosecuted in Maine, Connecticut, New York, New Jersey, Pennsylvania, Virginia, Vermont, Tennessee, Alabama, Missouri, Indiana, Illinois, Minnesota, North Dakota, California, and New Mexico. The Department of Agriculture has coöperated in New York City with the Association for the Improvement of the Condition of the Poor and the Industrial Christian Alliance in studying the food and nutrition of the people of the congested districts. Similar work has been done with Hull House in Chicago. The Polytechnic Institute and the Tuskegee Institute in Alabama and the Hampton Institute in Virginia have made investigations in their regions, particularly among the negroes in the Black Belt of the South. In other localities experiment stations, colleges, and universities make investigations among people of various classes and conditions of life, including not only dietary studies but other phases of the subject of the nutrition of man.

EDIBLE BIRDS' NESTS

FRANK H. SWEET.

We have all heard of bird's nest soup, that peculiar dish so esteemed by the Chinese. Few of us, however, have any idea of the kind of nest used, where it is to be found or how it is collected.

The edible bird's nest is not a mass of sticks, straws, and feathers, plastered together with clay or mud, such as the robin's nest, for instance. The method of their manufacture is unique. The swallow that builds the nest is provided with glands that secrete a peculiar sticky substance which hardens quickly on exposure to the air. No other bird is so provided, though among insects, as most of us know, the spider is so equipped.

These swallows inhabit the cliffs in the Sunda islands, Ceylon, Borneo, and Java, where the birds live in large caves overlooking the sea, and in colonies of countless thousands build their homes and rear their young.

When about to build the nest the bird's glands, which are situated under the tongue, become greatly swollen. The swallow presses its tongue against the rock that is to serve as the foundation of the nest, and then retreats a short distance, in so doing drawing a glutinous thread out of its mouth. This is woven into a bed of web, by dexterous movements of the bird's head, and the operations of spinning and weaving are continued until the nest is of the required size and shape. The completed nest is about ¼ the size of a hen's egg.

The best quality of nests are white and as translucent as porcelain, and are much prized by oriental epicures. Another species is of a brown color, but is mixed with bits of sticks, feathers, and other foreign substances, which render it almost useless as an article of diet. Probably either species would not prove especially attractive to an American palate.

The natives who gather the nests often live in the larger caves with the swallows. As the openings to these caves are often 60 feet high and between 40 and 50 feet wide, it can be seen that the men do not frighten the birds in the least. The birds do not even seem much disturbed at losing their nests, but keep on building year after year in the most contented fashion.

In gathering the nests 2 men work together. One carries a torch, for the inner recesses of the cave are often totally dark; the other is equipped with a long handled, 4-pronged spear. By means of a light bamboo ladder they ascend to the roof of the cave. The man with the spear selects the nest he wants, spears it, and with a slight twist disengages it from the rock, whole. He passes it down to his companion, who puts it in a basket at his waist. The nests of the best quality are tied with strips of bamboo into bundles, weighing about a pound and a half each, and containing about 40 nests. These bundles are worth about $9 each. The poorer grade of nests are nicely strung together, but are not nearly so valuable.

About $2,500 worth of these nests are gathered every year, 3 crops being taken during the season. Though this occupation of nest gathering has flourished for over 7 generations, or considerably over 100 years, so numerous are the swallows, and so rapidly do they breed, that there seems not the slightest diminution in the number of birds inhabiting these caves.

POMELO OR GRAPE FRUIT.

Pomelo, or grape fruit, as it is more generally known in the Eastern market, is a member of the citrus group, and is closely related to the orange and lemon. It was introduced into the United States many years ago, but has assumed importance only recently. In a recent journal Dr. B. B. Bolton described the fruit in effect as follows:

The pomelo is a native of China and Japan, but is now cultivated in California, Florida, the West Indies, Hawaii and other tropical countries. There are in California some 7,000 trees, a third of which are already bearing, and a much larger number in Florida. The fruit is smooth, round, and of a pale yellow color. It is

larger than the largest orange, and filled with a similar pulp, which contains a large quantity of juice. Owing to its habit of fruiting in clusters it has been called grape fruit. This name is rather misleading, and in California the State Board of Agriculture has decided that "it shall be known as the pomelo, which is botanically correct." Moreover, it should not be confounded with the shaddock, known as *Citrus amantium decuman;* while the pomelo is *C. a. pomelanus.*

Several varieties of pomelo are grown, and the purchaser should reject those which are too acid or lack the peculiar bitter-sweet flavor which is characteristic of this fruit. Pomelos should contain 2 per cent or less citric acid, while lemons contain 5 to 7 per cent. According to analysis made in California, pomelo juice of desirable quality contains 10 per cent total solids and 6.8 per cent sugar. The pomelo may be used for preparing refreshing summer drinks in the same way that lemons are used for lemonade.

The pomelo is recommended as an aid to weak digestion. For this purpose it should be cut in 2 crosswise and a little sugar added. After remaining 5 to 10 hours in the refrigerator the juice should be squeezed out and sipped a half an hour before breakfast or dinner.

An appetizing jelly or marmalade may be made from the pomelo as follows:

Cut large fruit, including the rind, into thin slices and remove the seeds. Add a quart of cold water to each pound of cut fruit. After it has stood 24 hours boil it 20 minutes, or until the skin is tender. Let it again stand 24 hours, then add a pint of sugar to each pound of cooked fruit, and boil until it jells. This should give a clear, amber jelly, possessing the delicate, bitter flavor of the fruit.

The pomelo is in greatest demand from January to April, but as the season advances the fruit improves in flavor, and when perfectly ripe may be eaten without sugar. In this ripe fruit the peculiar bitter-sweet flavor is most pronounced.

Pomelo is an attractive addition to the diet. It has been claimed that the bitter principle contained in it has medicinal properties, being useful as a tonic and for warding off fever in much the same way as quinine. The chemical nature of this bitter principle is not known. Other medicinal properties have been claimed for the pomelo, but are, as far as can be learned, chiefly matters of opinion.

CALIFORNIA INDIANS AND HORSE CHESTNUTS.

The California buckeye or horse chestnut, *Aesculus californica,* is a more or less scrubby tree 10 to 40 feet in height, which bears a great abundance of clusters of fragrant white flowers from May to July. These in autumn are partially replaced by large attractive fruits one to 2½ inches in diameter. The leaves usually drop off the tree a month or 2 after flowering time, and thus expose the fruit, which often hangs on until the beginning of winter. The translation of the Pomo Indians of the native name for the horse chestnut is "fruit tree," an appropriate name, since without exception all Indian tribes eat the fruit in considerable quantity even at the present time.

Even when quite civilized, the Indians, according to Dr. V. K. Chesnut, who has recently studied the subject, regard the horse chestnut with favor as food. When raw, however, it is commonly regarded as poisonous, and recognized by at least one of the tribes near Ukiah as a means of committing suicide. The fruit is undoubtedly poisonous in the fresh state. Dr. Chesnut found 2 or 3 methods used in preparing it for food, both consisting essentially in roasting and then washing out the poison. The buckeyes are placed in a hole lined with rock and willow leaves in which a fire has previously been built; more willow leaves are added and the whole is covered with hot ashes and dirt and allowed to remain one to 8 or 10 hours. The fruit then has the consistency of boiled potatoes. It may be either sliced, placed in a basket and soaked in running water 2 to 4 or 5 days, depending on the thinness of the slices, or mashed and rubbed into a paste with water, when the red-brown skin floats and is removed from the surface, and placed to soak one to 10 hours in a hole in the sand, as in the case of acorns, a wide and deep hole being used because the water drains off quite slowly. After this process the resultant mass, which has the consistency of gravy, is ready for consumption. It is frequently eaten cold and without salt. Buckeyes decay or sprout rapidly, and are therefore not preserved for use for long periods. After sprouting the taste is said to be disagreeable. The buckeye fruit is also a favorite food for squirrels, but hogs will not eat it. The leaves or young shoots are probably used to a slight extent by the Yuki and Concow Indians to poison fish, but for this purpose they are inferior even to blue curls, *Trichostema lanceolatum.*

He: You are willing to admit, then, that you are afraid to marry me because I may not be able to support you?

She: Well, I don't go so far as that, because fear implies a possibility of the thing happening.—Exchange.

PUBLISHER'S NOTES.

All big game hunters will be glad to learn that the Winchester Repeating Arms Co. has evolved a new cartridge for the '95 model box magazine repeating rifle. This new cartridge is of 35 caliber and is said to be the most powerful, at both long and short ranges, ever offered. It is loaded with a soft point metal jacketed bullet, and develops a muzzle velocity of 2,200 feet a second. This means a muzzle energy of 2,685 foot pounds. At 15 feet from the muzzle this new bullet penerates 15 pine boards each ⅞ of an inch thick. This indicates a tremendous killing power for the new cartridge, and it is sure to become popular at once.

This Company has also recently put on the market a line of high velocity, low pressure cartridges for 45-70, 45-90 and 50-110 Winchester rifles. These new cartridges are loaded with smokeless powder and soft point metal patched bullets. The cartridges are specially designed for big game hunting at distances up to 200 yards. The company has made a careful series of tests of this new ammunition as to velocity, penetration and trajectory. The result has been tabulated and printed and copies of these tables can be had by addressing the Winchester Company at New Haven. When you write please mention RECREATION.

Skagway, Alaska.

Messrs. H. J. Putman & Co.,
Minneapolis, Minn.

Gentlemen: It is but right I should let you know your No. 678 is more than I asked for or expected in the way of a boot. It was not only as comfortable as an old shoe from the beginning, but it is the happy combination of minimum weight and maximum staying qualities. Should anyone ask me where to buy the best boot for hunting, fishing, climbing mountains or knocking about at out of door railroad work in all kinds of weather, I should certainly advise him to make his wants known to you. Few if any who have not summered and wintered in Alaska can understand how much "all kinds of weather" means, especially when it includes conditions under foot as well as overhead.

Yours truly,
J. R. Van Cleve, Master Mechanic,
White Pass and Yukon Route.

The Polk Miller Drug Co., Richmond, Va., makers of the Sergeant dog remedies, have been running ½ page ads in RECREATION during the past year, and have recently sent me a voluntary order for 12 full pages, beginning with this issue of RECREATION. This proves 2 important claims: First, that RECREATION is a good advertising medium and has proved such in the case of the Polk Miller Co. Second, that the Sergeant remedies are real remedies. If they were not, dog men would have found it out long ago and the sale of them, instead of growing as it has grown from year to year, would have ceased entirely, in spite of liberal advertising. Moral: If you have a good dog, order a full line of the Sergeant remedies and keep them on hand for emergencies.

Eastern sportsmen are every year going in larger numbers to the Northwest for their fall shooting. The Great Northern reports that the demand this year for their "Shooting and Fishing Guide" is greater than ever before. Any sportsman, who contemplates a trip to the Northwest, or who wishes to keep posted on its attractive game fields, should send 6c. in stamps to F. I. Whitney for copy of his 1902 edition of "Shooting and Fishing along the line of the Great Northern Railway."

F. C. Huyck & Sons, Albany, New York, makers of the famous Kenwood sleeping bag, are again advertising in RECREATION, and I again cheerfully recommend these people and their goods to everybody. I know many people who are using Kenwood bags and have never yet heard an adverse criticism of them. I therefore advise all readers of RECREATION who have any idea of buying sleeping bags to write these people for descriptive circular. When you do so please mention RECREATION.

The Union Metallic Cartridge Company has issued a book entitled, "Shot Gun Ammunition," which illustrates and describes the various goods manufactured by this company, and which gives prices thereof. This is a most valuable work for reference and every shot gun shooter in the country should have a copy. When you write for it mention RECREATION.

The firm of Jespersen & Hines, formerly of 10 Park Place, New York, has discontinued business and dissolved. Mr. H. L. Jespersen, who was the head of the firm, is now with R. H. Macy & Co., Sixth Avenue and 14th Street, New York, where correspondence will reach him promptly.

EDITOR'S CORNER

ODELL AN ENEMY TO GAME PROTECTION

Here is a copy of a letter from Governor Odell, which will prove interesting reading to sportsmen at this time:

STATE OF NEW YORK
EXECUTIVE CHAMBER
ALBANY

Newburgh, N. Y., July 3, 1901.

Mr. G. O. Shields,

23 West 24th St., New York City.

Dear Sir:

I am in receipt of your letter of the 1st inst. concerning the New York City game violation cases. I had a conference with the members of the Forest, Fish and Game Commission today, and the matter is to be taken up and pushed energetically at once. You will have no fault to find with their attitude.

Yours very truly,

B. B. Odell

It will be remembered that in July, 1901, State Game Warden J. E. Overton, of Hempstead, L. I., secured a search warrant, entered the storage warehouse of the Arctic Freezing Company, of this city, and seized over 55,000 pieces of game which were held there in violation of State law. As a result of the conference referred to by the Governor, the firm of Black, Olcott, Gruber & Bonynge was employed

by the State to prosecute this case, but, notwithstanding the promise made by Governor Odell in the above letter, no action has been taken against the Arctic Freezing Company in this case.

On the contrary, Governor Odell had a bill prepared and passed by the last session of the New York Legislature providing for the keeping of game of any and all kinds, throughout the close season, under bond.

The passage of this law completely nullifies the case against the Arctic Freezing Company, in which the State stood to recover nearly $2,000,000. It is now impossible to get a judgment for $1. Every lawyer knows that no court or jury can be induced to convict a man, or a firm, or a company, of an offense against a law which may meantime have been repealed.

Another charge which the sportsmen of the State of New York have against Governor Odell is that he vetoed a bill which they induced the last Legislature to pass, prohibiting the sale of ruffed grouse. Thousands of the best sportsmen in the State worked all winter to secure the passage of that bill. Originally it included woodcock and quails. These were stricken from the bill, by way of compromise and under protest of the men who were working for the bill. We were told by members of the Assembly and of the Senate that it would be impossible to pass the bill as originally drafted, but that if we consented to the elimination of the words "quails and woodcock" we could pass the bill as to ruffed grouse, and that the Governor would sign it. We accepted these pledges on the theory that half a loaf is better than no bread. We pushed the bill through and Governor Odell vetoed it.

The League of American Sportsmen asked for hearings before the Governor on both of these bills, and both requests were denied. Furthermore, we asked for hearings before the Fish and Game Committees of the Senate, and of the Assembly, on the cold storage bill and were denied there.

It is now time for the sportsmen of the State of New York to look elsewhere for help in protecting the birds and the wild animals of this State. The Republican party, through Governor Odell, has shown that it is opposed to the best interests of this great cause. The League of American Sportsmen is not a political organization in any sense, and we have hoped it might be able to keep out of politics at all times. It does not go into the present fight as a political organization, but as simply what it is: A game protective organization. I do not know the political preferences of a dozen members of the League. Neither do I care to know. I do know, however, that all of them are game protectionists, and while I do not speak for all I have no doubt 90 per cent of the New York members will cast their votes and use their influence in the present campaign against Governor Odell. At this writing we have no pledges from the Democratic party as to what it will do for the game and the song birds of the State if placed in power; but we are certain these wild creatures could not fare worse at the hands of any party than they have fared during the past 2 years, under the administration of B. B. Odell. We shall do everything in our power to prevent his re-election.

A GREAT GAME PRESERVE.

Mr. L. A. Tillinghast, of 275 Westminster street, Providence, Rhode Island, is organizing a club of sportsmen with a view to buying some 20,000 acres of land lying 20 or 25 miles from that city. He requested me to carry an advertisement soliciting subscriptions to the proposed club. In accordance with my rule never to endorse any such enterprise without first knowing its value, I visited the property which Mr. Tillinghast proposes to buy for the use of the club. I drove over a large portion of it, examined it carefully, and can say without hesitation that it is admirably adapted to the purpose named.

The tract as outlined measures about 5 miles in width by 7 miles in length. There are within its limits 5 natural trout streams and 16 small lakes, or ponds. Eleven of these ponds and all the streams have always yielded fair numbers of trout. The brooks aggregate in length 15 to 20 miles. It would take a man 2 days to fish the longest stream, and at least one day each to fish the others. One of the ponds is about a mile long and half a mile wide. This and one of the others are well stocked with pickerel and black bass. The tract includes about 50 old farms, several of which have been abandoned, and most of the others are producing so poorly that their owners are tired of paying taxes on them and will be glad to sell them at almost any price they can get. Mr. Tillinghast estimates that the entire tract of about 20,000 acres can be bought at an average price of $3 an acre. Some of these farms have houses on them that cost $3,000 to $5,000 each, and that are as good to-day as when they were built. Others of the houses were built 50 to 100 years ago, and are now almost ready to tumble down.

On the other hand, there are large areas of forest land that have never been cleared. It has all been logged or cut off for timber, fuel, railway ties, telegraph poles, or fence posts, at various times. Some of the pine lands have been logged 3 times

within the lives of present owners, and a fourth crop of good, marketable pine could now be taken from the tract at any time. I am conservative in saying that $10,000 worth of marketable timber could be cut from this tract every year for the next 20 years, and if the cutting were done on scientific principles the young trees would have all the better chance to grow. A skilled forester could take charge of this tract of land and make it pay a handsome profit every year in this way, and at the end of 20 years the standing timber would be worth probably 10 times what the present stand is worth. A great deal of the uncultivated land is densely covered with underbrush, affording fine cover and abundant food for deer, elk and moose. It is a natural grouse country, and, in fact, deer were abundant in Rhode Island in the early history of the State. As many people know, they are becoming plentiful in Connecticut within 20 to 50 miles of this land, and if rigidly protected they would undoubtedly soon become abundant again in the timbered portions of Rhode Island.

It is the intention of the promoters of this club to fence the entire tract with a wire fence 8 feet high, capable of holding deer, elk, moose and buffalo; to buy a few head of each of these and perhaps other species of wild animals, and turn them in. It is also proposed to stock the entire tract with quails, English and Mongolian pheasants, wild turkeys, and perhaps other game birds. The streams and lake will be stocked with trout and black bass as fast as possible. The old farms offer fine opportunities for golf and polo grounds, and these, together with facilities for other outdoor games, will be provided. Some of the larger ponds will afford ample opportunities for boating and canoeing. A commodious club house will be built in a great pine forest overlooking a large portion of the club's lands.

The membership fee has been placed at $2,000. This will insure a select and high class membership. The club will be officered by men of well known business ability and integrity. The proposition is backed by the Union Trust Company of Providence, Rhode Island, to which membership fees are to be paid.

The railway station near the club grounds can be reached from Providence in one hour and 10 minutes, and a drive of 3 miles will land the member at the club house. It is, therefore, possible for a man to go from New York city to the club house in 6 hours. Or, better still, you can take a Providence line steamer here at 6 o'clock in the evening, have a comfortable night's rest, and be on the club grounds the next morning at 8.30. The region in question is as healthful as could be found anywhere. Malaria is unknown, and the visitor there is strangely impressed by meeting many men and women whose ages vary from 80 to 90 years. I can see no reason why this should not become one of the most desirable and successful country clubs in the United States. It has all the natural conditions that could be desired. It only remains to put the property in good condition, to stock the land with game and the waters with game fishes, in order to make that country a Paradise for men, women and children.

A VALUABLE OFFICER.

Captain Frank A. Barton, of the Third Cavalry, who was recently detailed as Acting Superintendent of the Sequoia and General Grant National Parks, in California, has proved a genuine surprise to certain people who have had occasion to visit those parks. Captain Barton is a soldier by education and training and he realizes that orders are not issued for fun, but that they are to be obeyed. For instance, in one case, where a Mr. E. E. Cerf, of San Francisco, went into the park with 2 guns and without complying with the Government regulations as to obtaining a permit for same, and having them sealed, Captain Barton had the guns seized and held according to his orders. After Mr. Cerf returned home he made a strong appeal to the Captain to have the guns returned to him, stating that they were rented guns and that for every day they were held the expense thereon was increased. Captain Barton replied that was exactly what he wished; that his orders were to hold any guns seized until the end of the season, and that these would be returned to Mr. Cerf in the fall at the close of the tourist season.

In another case a party consisting of E. W. and I. N. Linforth and Isaac Flagg, of Berkeley, California, camped in the Sequoia National Park the night of June 26. The next morning they left their camp without extinguishing their fire. This was found by Forest Ranger Ernest Britten the following day, still burning, and was extinguished by him. Captain Barton promptly detailed Lieutenant G. B. Comly, of the Third Cavalry, with 3 men, to follow these campers, arrest them and take them back to headquarters. I have not learned the result of the pursuit, but it is safe to assume that these careless campers were dealt with as they deserved..

Monday, August 4, W. S. Johnson, of San Jose, and Anthony Sawyer, of Orosi, each killed a deer in the Sequoia Park in violation of the Government rules. These men were arrested, their guns confiscated, and they and their companions promptly expelled from the park. L. L. Ellis, of Vi-

salia, was acting as guide for this party, under a permit issued by the Superintendent of the park. While it does not appear that he was present when the deer were killed, yet he evidently connived at the unlawful act, and his permit as a guide was therefore promptly revoked.

Captain Barton is a member of the L. A. S., and all the other members will be proud to know that they have a brother in a position where he can do so much for the protection of game and of forests.

SAVE THE SQUIRRELS.

(From the Boston Daily Globe.)

The wanton destruction of small game in this country has already made graveyards of the woods in many sections. The protest has become so loud that even where the game laws do not forbid the shooting of small birds and squirrels, boys who amuse themselves in that way are frequently reprimanded, and grown men who do it are generally frowned on as being engaged in small business.

Even sedate people have nothing against President Roosevelt's strenuous ways, and when he engages in killing mountain lions and other savage carnivora, it may be setting a good example of courage and hardihood for the rising generation; but when he encourages his children to go into the woods and kill and torture harmless squirrels the head of the nation is setting a bad example to the youth of the country. Here is a sample from an Oyster Bay dispatch:

"A little later Teddy and his cousins came from the woods with their guns. They had been out after squirrels, and each boy had 2. The boys are good shots. They would not think it sportsmenlike to hunt with shot guns. They had small bore rifles, and the trick was to 'bark' the squirrel. The boys would aim to strike just under the game, knocking it from a limb, stunning and killing it without tearing the flesh. It takes a good shot to do the trick."

If a boy should indulge in such "tricks" in Franklin park he would be denounced as cruel and arrested if caught. The fact that the park is a game preserve makes no difference as to the principle. Let the President bring up his boys to strenuous recreation, if he will, but he owes something to the youth of the nation.

A GUESSING MATCH.

We had a potpie at the last dinner of the Camp Fire Club and asked the members to guess what it was made of. Here are a few of the guesses:

Mud Turtle, Jack Rabbit, Kangaroo Rat, Owl, Coon, Possum, Prairie Dog, Tammany Tiger, Boarding House Goose, A small bird at least 6 months old, with no name; Side Hill Gouger, habitat, Yellowstone Park; Ornithoryncus, or some kind of cuss.

Easy as rolling off a log,
If it isn't cat, I'm sure it's dog.

"Hair," "Hair!" Call the dog! for it has but one scent and——— that's a bad one.

Of all the pies I ever tried
This surely takes the cake;
It looks like hog or crow or dog,
It tastes like rattlesnake.

An elephant and a kangaroo,
A wild gazelle from Timbuctoo,
A porcupine of rosy hue
And a little piece of young goo-goo.

And after all it was only Belgian hare.

ADDITIONAL FOREST RESERVES.

President Roosevelt has recently issued 2 proclamations extending the Yellowstone and the Teton forest reserves to such an extent as to add about 6,000,000 acres to these areas as originally created. Mr. A. A. Anderson, one of the Vice-Presidents of the L. A. S., has been appointed superintendent of both these reserves. We may, therefore, confidently expect that the game laws of the State of Wyoming, within which these tracts are located, will be rigidly enforced. This is an important step in the preservation of the big game of the Yellowstone country, as these tracts now include a large portion of the winter ranges of the elk, deer, antelope and mountain sheep. That curse of the West, the sheepman, will no longer be allowed to graze his flocks within this territory, and the game will have a much better show for its existence, during the long hard winters, than heretofore. President Roosevelt is entitled to the gratitude of every sportsman in the United States for his prompt and decisive action in this matter.

W. F. Burrell, a wealthy business man of Portland, Oregon, was recently arrested for having prairie chickens in his charge in close season. He was taken before Justice Hogue, of Portland, where he pleaded guilty to the charge, and was fined $15, the smallest penalty allowed by the law. Justice Hogue, for some unknown reason, remitted $10 of this fine. If the truth could be known, the fact would probably be revealed that Mr. Burrell's wealth influenced the judge in rendering his decision. It is safe to assume that if some poor working man had been haled before Justice Hogue on a similar charge he would have

been fined to the limit and sent to jail if unable to pay. Then the judge would probably have pointed with pride to the record as showing the fearless manner in which he discharged his duties. Justice Hogue should feel ashamed of the record in the Burrell case, and it is to be hoped that when his present term of office expires the real sportsmen of Portland will see that he is retired to private life.

The Supervisors of Santa Cruz county, Cal., are apparently level headed men. They have adopted a stringent amendment to their county game laws, one section of which makes it a misdemeanor to kill any song bird at any time of the year. Another section provides that no angler may take more than 50 trout of one variety in one day. This provision is entirely too liberal, but it is a step in the right direction. I trust the Supervisors may amend that section still further, so as to limit the catch for one man for a day to 20 trout, of all varieties. Still another section of the new law prohibits the killing of any species of tree squirrel at any time. Here is an example that might well be followed by the law makers of all States.

The sportsmen in the State of Idaho should all begin now to train up their Legislators in the way they should go. It is a shame that the good law which Idaho had on its statute books requiring the screening of the heads of irrigating ditches should ever have been repealed. The friends of game and fish protection in that State should see to it that this law is reenacted at the earliest possible opportunity and it is only by personal solicitation and earnest admonitions made upon law makers that such action may be brought about. Let every sportsman do his duty.

The North Adams Gun Club has been organized at the city of that name in Massachusetts, with officers as follows: President, E. H. Pratt; Vice-President, Albert Hawkins; Secreary, L. W. Graves; Treasurer, F. J. McHale; Captain trap team, A. J. Adams; Captain rifle team, Charles Hansel. The club has leased shooting grounds and has set up 3 traps and a 200 yard rifle range. The club starts off with 40 members and expects to enroll more in the near future.

A fruit grower in Southern New Hampshire, noted for the fine character of his fruit, was asked what means he took to protect his orchard from injury. He replied, the only thing he did was to put boards around the eaves of his barn where the birds could make their nests; that a colony of 500 swallows kept his orchard clear of insects.

Will the good friend who wrote me a story entitled "Hunting Elk," which treats of his experiences on Mad creek, kindly send me his name and address?

The parrot escaped through a window and perched in a tree. The owner's efforts to capture it, even with a butterfly net, were in vain. He stood at the bottom of the tree swearing at the bird, when an Irishman came along.

"What is the matter?" demanded Pat.

"I can't catch that darned bird," said the man, "and here is a dollar for the man who can."

"I am the man," cried Pat, and he started up the tree.

As he climbed from branch to branch the parrot did the same. Finally they neared the top, and the branches began to wabble dangerously. The parrot was moved to speech.

"What the devil do you want?" it demanded.

"I beg your pardon," cried Pat, already half way down the tree. "I thought you was a bird."—New York Tribune.

She: "Jack! darling! I made you believe I wasn't in earnest when I told you I didn't mean what I said. Didn't I?"

"I believe so."

"Well! I take it all back."—Life.

RECREATION is getting better each month. It is a fine magazine for $1, and is worth 3 other magazines.

Arthur J. Thompson, Pasadena, Cal.

I have little trouble in securing subscribers to RECREATION, as they all say it is a bird.

J. S. Kittell, Troy, N. Y.

RECREATION is the best sportsmen's periodical on earth, and grows better every month.

M. P. Edy, Clarenceville. P. Q.

I value RECREATION more highly than any other magazine I read.

B. F. Kizer, Stanberry, Mo.

I think your magazine the best of its kind. W. M. Rickert, Waterloo, Iowa.

RECREATION is O. K. Simply delicious. Fred Schaible, Lansing, Mich.

RECREATION is the best magazine out.

Frank G. Houghton, Leominster, Mass.

Purity is Free

Schlitz beer costs the same as common beer, so that purity is free to you.

Yet purity costs us as much as the beer itself.

It requires absolute cleanliness. It compels us to filter even the air that cools the beer. Then we carefully filter the beer, and sterilize every bottle after it is sealed.

And the beer must be aged for months in a temperature of 34 degrees, for otherwise the beer would cause biliousness.

Don't let your dealer decide which beer you shall drink, for he makes most on the common kinds.

Ask for Schlitz, for purity means healthfulness, yet that purity is free.

Not a beverage known to man is more healthful than beer, if it's pure.

Barley-malt and hops—a half-digested food and a tonic.

Your doctor says the weak must have it. Why not the strong?

But don't drink a germ-laden beer, when Schlitz is sold everywhere.

Ask for the brewery bottling.

AN INDIAN'S INGENUITY.

November 1st, '99, J. D. Finn, Levi Fulton and I, all hunting enthusiasts, left for a week's duck shooting in Northern Minnesota. Although somewhat late in the season the ducks had lingered about the numerous lakes and marshes of that region, and we congratulated ourselves on the prospects of good sport.

Our first stop was made at Grand Rapids where we secured supplies and hired an Indian guide. The next morning after continuing our journey about 100 miles Northwest, on the line of the Great Northern railway, we decided to stop and prospect for duck haunts.

On the advice of our guide we followed a trail through the woods to an opening 3 or 4 miles across. There before our eyes, on what appeared a great meadow, were thousands of mallards. When we expressed surprise at seeing so many ducks where apparently there was no water our Indian said:

"Plenty water. Come, I show you."

We went to the edge of the meadow, and Mr. Fulton, at the request of the Indian, started to walk toward the ducks, some 100 rods distant. He had scarcely gone a yard when in he went to his waist, and came back to us dripping wet. Our guide told us that the Great Northern railway, in building its line through that territory, had found it necessary to drain one of the lakes. What looked to us like a meadow was in fact the bottom of that lake, covered with a uniform growth of moss, grass, etc., completely hiding the few feet of water underneath. How we were to reach the birds out in the middle was a problem. Mr. Finn thought he could drive his light canvas boat through the moss, but after working out a few rods gave it up and returned. To relieve his feelings he shot both barrels of his gun into the air and watched for some stir among the distant mallards. Some thousands of them rose, circled and dropped back again on their feeding ground.

We walked half way around the lake bottom trying to find some way of getting within shooting distance, but none could be found and we eventually came back to where we had left our guide. It did not take us long to discover that he had some notion in his head. He had collected a large quantity of pine and hemlock foliage, several hundred straight sticks about 6 feet long, and a big pile of wire grass. In answer to our questions he simply pointed toward the ducks and resumed his work. Leaving him at his work the other 3 members of the party took a little trip through the woods in the hope of getting a shot at a grouse. After spending about 4 hours in that way we returned and found our guide had completed a thing looking much like a big hogshead with the ends knocked out. Running around the inside, like the hoops of a barrel, were 5 or 6 strips of birch about 5 inches thick, and to those were laced the small sticks, the whole outside being covered by a thick and strong matting of grass and moss.

He started rolling this wheel toward the edge of the lake bottom and motioned for us to come along. Then he stepped inside the wheel and, to our astonishment, started the thing rolling toward the middle of the lake. He went only a short distance, however, and then returned, telling one of us to get in with him. Taking his gun and a number of shells Mr. Fulton entered with the guide, and in less than half an hour he was deposited on a bog near the middle of the bottom. The ducks had risen in swarms at the approach of the curious vehicle, many of them flying over to the farther side. With some brush which the Indian had the foresight to carry with him Mr. Fulton made a blind and settled down for a chance shot.

The guide returned, and conveyed me to another part of the feeding ground, where another blind was made. Mr. Finn was next carried a considerable distance in the same way and deposited on a bog.

The Indian had so constructed his wheel that a man could roll it from the inside by leaning or climbing on one side, much as a dog would turn an old fashioned treadmill. The thick covering of moss and grass enabled the wheel to roll over the mass of vegetable matter, without sinking in the water. When Mr. Finn had been left to build his blind the guide rolled his strange wheel toward the distant ducks, approaching them on a side that would turn them in the direction of Mr. Fulton. He opened with 6 shots from his pump gun. The ducks came to me and I fired; then Mr. Finn's turn came. The Indian kept the birds moving and we banged away all the afternoon. It was the most enjoyable sport I ever had.

We shot until dark, and bagged 46 big mallards, 7 teal and one canvas back that afternoon. The next day we went through the same performance, but the ducks were more wary and avoided the blinds with more persistency. However, we were well repaid for our ride the second day, securing 48 mallards, 8 teal and 3 bluebills.

The proprietor of a German menagerie keeps caged together a lion, a tiger, a wolf and a lamb, which he labels "The Happy Family." When asked confidentially how long these animals had lived together, he answered:

"Ten months, but the lamb has to be renewed occasionally."—Philadelphia Times.

"Did you get your lost dog back when you advertised?"

"No, but I got 3 better ones."—Cleveland Plain Dealer.

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AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

7th ANNUAL COMPETITION.

RECREATION has conducted 6 amateur photographic competitions, all of which have been eminently successful. The 7th opened April 1st, 1902, and will close November 30th, 1902.

Following is a list of prizes to be awarded:

First prize: A Long Focus Korona Camera 5 x 7, made by the Gundlach Optical Co., Rochester, N. Y., fitted with a Turner-Reich Anastigmat Lens, and listed at $85.

Second prize: A No. 3 Folding Pocket Kodak, made by the Eastman Kodak Co., Rochester, N. Y., fitted with a Bausch & Lomb Lens Plastigmat Unicum Shutter, and listed at $61.50.

Third prize: An Al-Vista-Panoramic Camera, made by the Multiscope and Film Co., Burlington, Wis., and listed at $40.

Fourth prize: A Wizard C Camera, 4 x 5, made by the Manhattan Optical Co., Cresskill, N. J., with B. & L. Iris Diaphragm and Leather Carrying Case: listed at $33.

Fifth prize: A Waterproof Wall Tent, 12 x 16, made by D. T. Abercrombie & Co., New York, and Listed at $32.

Sixth prize: A Gold Hunting Case Watch, listed at $50.

Seventh prize: A Tourist Hawkeye Camera, 4 x 5, and made by the Blair Camera Co., Rochester, N. Y., and listed at $15.

Eighth prize: A Bristol Steel Fishing Rod, made by the Horton Mfg. Co., Bristol, Conn., and listed at $6.

The 10 next best pictures will each be awarded one dozen 8 x 10 Carbutt Plates, made by the Carbutt Dry Plate Co., Wayne Junction, Philadelphia, Pa.

The 10 next best pictures will each be awarded one dozen 5 x 7 Carbutt Plates.

The 10 next best pictures will each be awarded one dozen 4 x 5 Carbutt Plates.

A special prize: A Goerz Binocular Field Glass, listed at $74.25, will be given for the best picture of a live wild animal.

Subjects are limited to wild animals, birds, fishes, camp scenes, and to figures or groups of persons, or animals, representing in a truthful manner shooting, fishing, amateur photography, bicycling, sailing or other form of outdoor or indoor sport or recreation. Awards to be made by 3 judges, none of whom shall be competitors.

Conditions: Contestants must submit 2 mounted prints, either silver, bromide, platinum or carbon, of each subject, which, as well as the negative, shall become the property of RECREATION. Negatives not to be sent unless called for.

In submitting pictures, please write simply your full name and address on the back of each, and number such prints as you may send, 1, 2, 3, etc. Then in a letter addressed Photographic Editor, RECREATION, say, for instance:

No. 1 is entitled —— ——.
Made with a —— —— camera.
—— —— lens.
On a —— —— plate.
Printed on —— —— paper.
Length of exposure, —— ——.

Then add any further information you may deem of interest to the judges, or to other amateur photographers. Same as to Nos. 2, 3, etc.

This is necessary in order to save postage. In all cases where more than the name and address of the sender and serial number of picture are written on the back of prints I am required to pay letter postage here. I have paid as high as $2.50 on a single package of a dozen pictures, in addition to that prepaid by the sender, on account of too much writing on the prints.

Any number of subjects may be submitted.

Pictures that may have been published elsewhere, or that may have been entered in any other competition, not available. No entry fee charged.

Don't let people who pose for you look at the camera. Occupy them in some other way. Many otherwise fine pictures have failed to win in the former competitions because the makers did not heed this warning.

HOME-MADE PHOTOGRAPHIC PAPERS.

Photographic printing papers can be easily made at home; all that is necessary being to coat paper with a sensitive salt. Silver nitrate can thus be used of the following strength:

Silver nitrate .....60 grains.
Water .....1 ounce.

Wood, cloth, leather, the human skin, and almost every organic substance, if coated with such a solution, will be rendered sensitive to light, and therefore pictures can be produced on them. Such pictures, however, are of necessity dull in appearance, owing to the sensitive salt sinking into the body of the paper. To overcome this defect, use a substratum, or size, to fill the pores of the paper, thus keeping the image on the surface, and obtaining brilliancy and transparency. The preparation of photographic papers thus falls under 3 heads: The paper, the substratum or size, and the sensitizer.

Almost any paper will serve for photographic purposes, only those being useless which contain substances liable to reduce the sensitive salt, or render it insensitive. Note paper is generally sufficiently pure; also the various drawing papers, such as Whatman's. A paper having a fine grain will yield the best results, and the smoother it is, the less likely are the prints to be flat and muddy. For broad effects, and

when fine detail is not desired, a rough drawing paper will give artistic and sketchy impressions.

Many organic substances have, at different times, been employed as sizes for photographic paper, those finding most favor being gum, gelatine, albumen and arrowroot. Each of these will answer as a substratum, the character of the print being controlled by the substance used. Gum and gelatine give strong and vigorous images of a brown or rich sepia; arrowroot and albumen softer and more delicate prints. They can all be applied to the paper by simply brushing them over the surface, care being taken that only one side is coated. Gelatine and arrowroot may, if desired, be made by means of hot water into a thin paste, poured into a dish, and the paper floated on the surface. A more even coating is secured by floating the paper in that manner, as when applied with a brush the sizing is apt to dry streaky. The coated paper should be hung up to dry, when it can be kept any length of time.

Any sensitive salt may be utilized as a sensitizer. With albumen and gelatine, silver chloride is most commonly employed in combination with an organic silver salt, such as a citrate or tartrate. Bichromate of potassium and gum are combined to form the image in the "Bi-gum" process. The sensitizer is applied in precisely the same manner as the substratum; that is, with a brush, or by floating on a solution of the salt. This, of course, must be done in a non-actinic light, the paper, when dry, being stored in a dark place. In general, the sensitized papers do not keep well, it being advisable to use them within a few days of their preparation. There are many processes and different sensitive salts. Silver, uranium and iron processes are typical. The substratum for the silver process is:

Gelatine	25 grains.
Ammonium chloride	15 grains.
Water	2 ounces.

Soak the gelatine in the cold water for an hour; add the ammonium chloride, and place the vessel containing them in hot water until the gelatine dissolves. When ready apply the solution to the paper, post card, or whatever surface is to be sized.

For silk or linen, the following is preferable:

Arrowroot	4 grains.
Ammonium chloride	4 grains.
Boiling water	1½ ounces.

Wash the material first, then iron and immerse in the solution for 5 minutes; take out, and when dry, iron again.

The sensitizer for the gelatine substratum is:

Silver nitrate	60 grains.
Citric acid	15 grains.
Distilled water	1 ounce.

For the arrowroot, a weaker solution is employed, consisting of:

Silver nitrate	20 grains.
Water	1 ounce.

These proportions of ammonium chloride must be strictly adhered to, otherwise the sensitiveness of the paper will be reduced. The silver chloride is added to give body and depth to the print, and to aid the toning. For silk and linen, the printing should be carried much beyond the average depth for prints. In sensitizing, float the paper on the solutions 2 to 3 minutes. Should the image on printing be weak, and lacking in depth, the nitrate of silver can be increased in strength to 80 or 100 grains an ounce. If the prints are dull and have a sunken appearance, the floating may be reduced to one minute. Tone as with P. O. P. The prints tone readily, and may be carried through brown sepia, a rich purple to a blue black. One of the best toning baths is:

Gold chloride	1 grain.
Acetate of soda	30 grains.
Water	8 ounces.

The above must be mixed at least 24 hours before use. For immediate use, the bicarbonate bath is excellent, giving a blue black tone.

Chloride of gold	1 grain.
Bicarbonate of soda	4 grains.
Water	8 ounces.

This bath does not keep, and should be made only as wanted. When the toning proceeds too rapidly, as is often the case with these papers, slow down the bath by dilution with water. Fix and wash the same as with P. O. P.

The uranium process is one of the most interesting of photographic printing methods. The prints are unlike those made by the usual methods, being comparable to wash drawings or water-color paintings. The manipulation is even more simple than that of the silver process, only 2 solutions being needed, the sensitizer and the developer. Sized paper can not be employed with success, the plain drawing paper being sensitized with

Uranium nitrate	240 grains.
Water	16 ounces.

This is applied, as before described, either with a brush or by floating on the solution. When dry, the paper is ready

for printing. In the printing lies the explanation of the neglect of this beautiful uranium process, for, unless the conditions are favorable, it may need many hours' exposure to obtain a fully printed proof. The sensitiveness depends on the purity of the uranium nitrate. When chemically pure half an hour's exposure will suffice. Sometimes 8 or 9 hours have been required to reach the requisite depth. On printing, a faint image is given, and the proof may be considered finished when the detail in the shadows is clearly visible, of a pale violet color. The faint impression is fully brought out by development, the nature of the developer determining the final tone. The 3 following developers are good:

For violet:

Chloride of gold..... 1 part.
Water .....240 parts.

For red brown:

Ferricyanide of potassium..... 1 part.
Water .....48 parts.

For black:

Nitrate of silver..... 1 part.
Distilled water .....30 parts.

Green and other colors are possible.

Flow the developer over the print, which, if correctly timed, will gain vigor in a few minutes. After development, the final operation is the washing, occupying about half an hour, to remove the excess salts; when the prints can be taken as finished. A point insisted on in the uranium process is that the paper previous to sensitizing should be excluded from the light for several days.

The iron process, cyanotype, or blue process, was discovered by Sir John Herschel. Since it was first made known numerous modifications have been introduced. It is the simplest of all photographic printing processes, only a single solution being required. A substratum can be applied if desired; but the paper prints successfully with the sensitizer alone. This consists of 2 solutions:

1. Iron ammonia citrate..... 20 parts.
   Water .....100 parts.

2. Potassium ferricyanide ..... 16 parts.
   Water .....100 parts.

No. 2 must be mixed immediately before use, as when in solution it deteriorates rapidly. Make the sensitizer by taking equal parts of 1 and 2, and apply to the paper with a brush, taking the precaution to go over the surface in all directions. After drying, it should be of a pale lemon color. A fairly visible image is given on printing, but it requires some experience before the correct printing depth can be gauged. The proof will not be far wrong if the printing is stopped when the shadows become slightly mealy in appearance. After printing, immerse the proofs in clean water. In this they gradually develop until the high lights are a pure white, and the shadows an intense blue. When this stage is reached they may be considered as fixed, and may be taken out and dried ready for mounting. The developed print will be changed from a blue to a violet by immersion in a solution of caustic potash; to a green by sulphuric acid. A brown can be produced by treating the violet image with tannic acid. Several other methods of producing blue prints have been introduced, though this process forms the basis of them all.—Professional and Amateur Photographer.

EASY METHOD OF ENLARGING.

I have tried enlarging in many different ways, but my best results were obtained by the following method: Place the negative to be enlarged in a solid holder. Put a wide angle lens in the camera so you can get as large an image as possible without the use of a long bellows. Then focus and proceed as usual. You will obtain a positive which should be developed farther than a transparency. After drying place in a printing frame and on this, film to film, place a dry plate and expose one to 3 seconds, according to the density of the negative. Print from this negative and save the positive, for use in case you should break your other plate. If you prefer you can first make your positive and then enlarge from that in the same manner. When it is possible to have an enlarging room you can enlarge to a greater degree.

Always have a ground glass placed behind the plate, to make a more even negative; or place a white substance at a greater distance back to do the same thing.

This mode is much better than enlarging from a print, as it does not give a gray effect nor does the print appear flat. It is superior to a bromide enlargement because several prints can be made instead of only one at a time; and platinum paper is superior to bromide. Often a negative can be improved in its printing qualities by this method and it is possible to get rid of many defects found in the negative.

It is a good idea to make a positive of all your best negatives in case of an accident. I lost one of my best negatives and could never replace it because I had neglected to make a positive.

Clinton A. Smith, Eureka Springs, Ark.

SNAP SHOTS.

Is there any coating other than blue which can be used for printing on postal

cards, etc., and which can be made or easily bought?

John S. Miller, Jr., Chicago.

ANSWER.

Sensitized post cards for making prints in black and white can be prepared by the use of any one of the well known formulas for bromide of silver solutions. However, you would find it cheaper to buy these cards already prepared. That can be done through almost any photographic supply house. These cards are printed by artificial light in the same manner as the well known Cyko paper and developed in the same way. Anthony & Scovill Co., 122 Fifth avenue, New York, can supply you with these post cards in either heavy matt or glace surface, for 20 cents a dozen or $2 a gross.—EDITOR.

Amateur photographers should remember that my 7th annual competition remains open until November 30th. The closing date was made 2 months later this year than heretofore in order to give all amateurs a chance to compete. Thousands of busy men do not take their annual vacations until October or November. Then they go into the woods with gun, rod and camera. It was with a view to giving such people a chance to enter the competition that the open season was prolonged. There are frequently fine days in October and November when good pictures may be taken. The leaves fall by that time and better light may be obtained in the forests. It is possible to get many more pictures of live birds and animals, especially by bait, in the autumn than in summer, and I trust this new arrangement may result in many fine pictures being entered in the 1902 competition.

Can you give me the address of a firm handling cameras that take 10 photos with one exposure on one plate?

Arthur Achison, St. Stephen, N. B.

ANSWER.

There is an apparatus for taking 10 photographs on one plate, but I do not know the address of the manufacturer as he does not advertise in RECREATION. If you will write Anthony & Scovill Co., 122 Fifth avenue, New York, they can undoubtedly send you a catalogue which will give you all the information you wish. The old tin-type camera takes any number of pictures on one plate, but that is not adapted for amateur use, as it consists of what is known as the wet process.—EDITOR.

Where can I obtain an attachment, or lens for taking stamp pictures?

Fred Francis, Wisdom, Mont.

ANSWER.

As most of the attachments for making stamp pictures are manufactured for use with heavy professional cameras it is doubtful if you can procure one which can be adapted to an ordinary camera. Anthony & Scovill Co., 122 Fifth avenue, New York, can supply you with camera complete for the making of one to 24 stamp pictures on a 5 x 7 plate, for $12. This includes extra kits, ground glass and plate holder.—EDITOR.

I see in your June issue, on page 487, that Jos. B. D., Allegheny, Pa., wishes to buy negatives of Pan-American pictures. I have about 50 good negatives of Pan buildings, statuary, night views, and a number of snapshots taken on the Midway, which are sure to please. I will sell prints from these negatives at 10 cents each, unmounted, size 4x5. I have a few choice 5x7 negatives; one of the Temple of Music, which can not be beaten; also an excellent one of the Triumphal Bridge. Prints of these I will sell for 20 cents each, unmounted.

H. M. Albaugh, Cleveland, O.

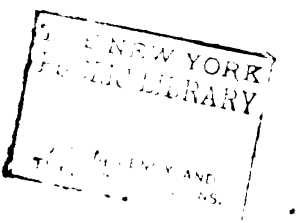
For backing plates the best combination is water, lampblack and gum arabic. The trick lies in using gum arabic for an adhesive, about one-half as much gum arabic as lampblack, in bulk, not by weight. Water should then be added until the mixture is the consistency of thick paste. It can also be dried in cakes by pouring it into moulds and setting it behind the stove. It is not necessary to put on a thick coating of this backing; just enough to cover the plate evenly will be sufficient.—Photo Beacon.

To prevent halation around windows when ready to make the exposure on an interior in which windows are included, hang one thickness of ordinary red mosquito netting over them. It will not show in the photograph and will admit of perfect rendition of lace curtains or other hangings, as well as full detail in the frame and sash of the window. Of course, full sunlight streaming into the window will be a hard test; but the scheme will succeed where non-halation plates will fail.—Western Camera Notes.

To remove yellow stains from pyro developed negatives, bathe them in sulphurous acid water or in a 10 per cent solution of sulphide of soda, to which a few drops of sulphuric acid have been added.

—The News Monger.

When a toning bath turns purple and a precipitate forms it is spoiling. The black sediment is metallic gold.—**Photo Clippings.**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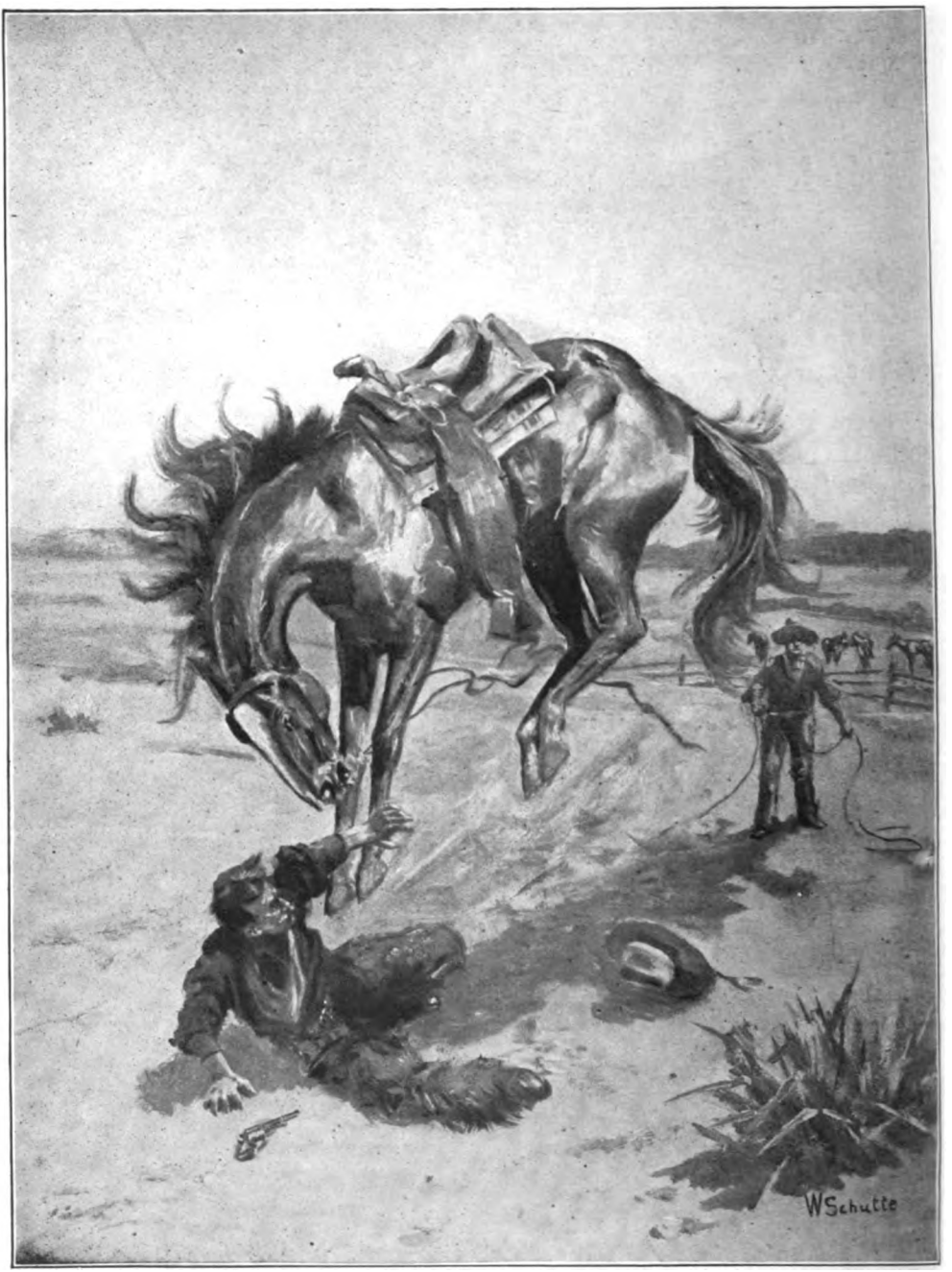


I WAS ON MY BACK AND THAT HORSE WAS COMING DOWN FROM HEAVEN WITH ALL 4 FEET POINTING AT MY BREAD BASKET.

RECREATION

Volume XVII. NOVEMBER, 1902. Number 5.

G. O. SHIELDS (COQUINA,) Editor and Manager

BRONCHO BUSTING.

GEO. B. M'CLELLAN.

"George, we ought to go out and get that bunch of horses on North Buffalo," said one of the boys on the ranch to me one day in early spring. The bunch was led by an old work mare we had named Mother Rice, because we got her from a man of that name. The mare had not been corraled for 2 years, and had collected a bunch of horses nearly as wild as herself.

"Get Mother Rice and bunch, eh? That is easier said than done. You have never had a round with Mother Rice. With me it's different. I've spent several nights in the badlands, without grub, and with no bed save my sweat-wet saddle blanket, just from thinking I could follow Mother Rice and her bunch."

"You did not have a good man to help you," said Harve. "Let's give them a whirl anyhow. There are some good horses in that bunch, and with you and old Wagon and Mesquite and me I believe we can make them think some one has been after them."

"All right; if you are aching for a trip I will go, but it's like going 25 miles to a dance; more fun going and dancing than it is coming home."

However, we finally agreed that we would start the next day but one, so when the time arrived we had our horses all ready and headed for the badlands, with beds and grub on a pack horse. The first day we covered 20 or 25 miles. After getting a bite to eat we again saddled our horses and went out to locate our bunch. About a mile above where we were camped we found fresh trails of a bunch of horses. We followed the bunch North 2 or 3 miles, and with the field glasses I located them on a flat a mile farther on. The next thing was to find out if it was Mother Rice's outfit, so we started to stalk them.

We got on the leeward side of the bunch and made for a knoll that seemed close to the horses. By riding some distance around and leaving our horses in the bottom of the gulch we reached the knoll and peered over.

"Is that her?" asked Harve.

No need for me to take a second look at the splendid brown mare, with the stripe in the face, standing so quietly not more than 60 or 75 yards away.

"That is certainly Mother Rice Now be still. Don't show up. If you do they are off."

There were 13 horses in the bunch, 2 of them showing saddle marks.

"There are at least 2 broken horses in that bunch," said Harve. "We must have them."

We slipped quietly down from the hill, back to our horses, and rode to camp. Early the next morning we started out to get the bunch. We found them grazing peacefully within a quarter of a mile of where we left them.

"Now," I said, "we must get behind that ridge, so as to be on the other side of them when we jump

them. I will cross the gulch and go over that ridge, keeping out of sight till you get around on the other side of them and give them a start. If they start down the gulch don't crowd them, but let them take their time. They will cross to my side 3 or 4 miles farther down, and I will ride alongside them into Nowood. There you must be on hand, for they will cross and take back up the divide on your side."

"All right," said Harve. "I shall fire them down that creek if that is all you want."

Throwing them down the gulch proved more of a job than Harve anticipated. I went leisurely across the creek 2 miles below the horses and waited for the fun to commence. In half an hour I saw Harve's gray horse on the ridge directly back of the wild bunch. He was barely in sight when the bunch ran up together, stopped a moment, and then started off up the creek. Harve, on Mesquite, had a hard run to head and turn them, but he succeeded, and then down they came past me. I galloped parallel with them, but out of sight behind a ridge, to the opening of the big trails from the creek crossing. There I was when Mother Rice led her band out before me.

When the old mare found me directly in her path she stopped, and a long, loud snort warned the rest of the bunch that there was trouble ahead. I was at a wide place in the ridge, and the old mare seemed inclined to pass me. I pulled out my 6-shooter, and made up my mind that if she passed me I would interfere with her internal mechanism anyhow; but she seemed to think better of it. She turned back down the ridge and struck her long lope, with the rest of the bunch at her heels in single file. I knew I had one bad place to watch, where the trails from the next water hole below crossed the ridge. The horses would probably start Northward on them while I wanted them to go on due East. I rode hard when down in the low places out of sight of the bunch and slowly when up in sight of them, so I was close to them at the next trails. When I bobbed up ahead of them they were much surprised. Five or 6 miles farther would take us down to Nowood. There they would cross Buffalo creek and try to go back on the other side, so I determined to crowd them, hoping to prevent that. As I turned them the last time down into Buffalo creek I looked across and saw Harve on the ridge on the other side. I said to myself:

"Mother Rice, your days in the badlands are over."

I pulled up and watched the performance, for when Harve turned them there we would have them in a canyon leading down to Nowood. They would be off their range, and we would have no more serious trouble till we got to the corral. Harve saw them coming and got in the place where he would have the greatest advantage. He had not long to wait. They came on to the ridge and found Harve and Mesquite right in front of them. They stopped and turned around once or twice; then the old brown mare made a break for business.

Harve tried to head her off, but she dodged in behind him and was off up the ridge like a steam engine, with Harve in hot pursuit, trying to get close enough to rope her. No go. She left him. We succeeded in getting the others into the corral, and what a satisfaction it was! We had captured one mare I had not seen for 3 years. I had supposed she was dead. It was a good day's work to get her.

I proposed to give Wagon a rest by riding for the remainder of the journey one of the captives which bore saddle marks.

"All right," said Harve. "You can ride one of them old brutes if

you want to, but Mesquite is good enough for me until I get to the ranch."

That was 8 miles, and it was then 3.30 p. m. We had been running that bunch about 8 hours. The corral was close to a ranch, and it happened that all the ladies in the country were visiting there that day. Ladies were not numerous on the range at that time, but they were precious, and their good opinion was much coveted. I said.

"Old Wagon is tired and I am going to change."

Someone rushed to the house and told the women, and they all came to see me ride the wild horse. I got my rope, went into the corral and was about to catch the smallest of the L. U. horses, when one of the boys said:

"Don't get that one with the big white spots on his back. I tried to ride him once, and he was too fierce for me; threw me off faster than I could get on him."

"Well," said I, "if he is that kind of a horse I will just go him a round. I should like to have one of those old brutes buck with me."

All the women stood looking on. What scrapes they do get a fellow into!

"It will give me a good chance to take a rib or 2 out of him, which I shall surely do if my spurs are strong enough, and I guess they are"; so I turned and threw my rope on the white-spotted horse. I always did think women had no business around a corral, and since then I know it. He faunched a little when the rope tightened on his neck, but soon stopped, and I saddled him without any trouble. I mounted him carefully, turned him around and started out of the corral. As I was going out Harve hit him with his rope. I looked around and something happened. I was on my back looking up, and that horse was coming from heaven with all 4 feet pointing at my bread basket. How I scrambled! I forgot all about appearances. You would not wonder at the success of Cody's Wild West show if you could have seen what a pleased audience was mine. Everyone was convulsed with laughter save me. When I got up that horse was hopping off toward the creek, with the stirrups meeting over his back at every jump. When he reached the creek he knocked it dry at that place by turning a complete somersault into it. I finally managed to get up a little sickly laugh, and went after Mr. Horse. When he stopped I had blood in my eye. I got him back, got him going, put both spurs into him, and he did some pretty work for awhile, but that time I was looking for him, and I sat him creditably. When I looked around to see what effect that had on the women there was not a woman in sight. They had left before the last part of the performance. I did not go to hunt any of them. I was satisfied to head for home.

Some of the sports who are so fond of fox hunting should come out here and take one run across the badlands after horses. If the adventurous ones should come in alive they would consider fox hunting tame sport afterward. It is astonishing how few men are hurt when one considers how they ride and the falls they sometimes get. I sat one day on a hill watching a fellow run a bunch of horses till he disappeared. The horses came on down till another fellow caught them and put them into a big bunch we were holding. When we were ready to start on, some of the boys said Hank must have had a fall or he would have been in by that time.

"Well," I said, "everyone looks out for himself when running horses, so come on."

Dave said he had been watching and could not see anything of Hank;

he would go over and look for him. He found Hank stretched out insensible and his horse was so lame he could not go. They were 10 miles from water. When Hank came to himself he was in great pain so it was slow work for Dave to move him. They were all that day and till after midnight getting to camp, 12 miles. In a few days Hank was all right again. Those fellows are tough and mighty hard to kill.

AMATEUR PHOTO BY A. T. WHITMORE.

A FLOCK OF MALLARDS.

"Let me get over this difficulty somehow," says youth, "that I may play the game of life well;"—and our hair is turning gray before we learn that the difficulty *is* the game.—The Way of Escape.

DID YOU EVER HEAR A RATTLER CRAWL?

GEO. WALKER.

During the spring of '98 I herded sheep on the tablelands of central Montana. The season was unusually backward, being cold and windy, and for 3 weeks it rained almost continuously. Constant exposure all day, and often part of the night, had nearly used me up.

One day in the latter part of May and near the end of the rainy season, the clouds broke away for a while and the sun poured down its rays with intolerable heat. About noon my sheep camped and I improved the opportunity to eat my lunch and smoke. Then, as the herd remained quiet, I lay down, using my coat as a pillow and pulling my hat over my face.

In the same locality and on the same day a rattlesnake ventured from its den and was, perhaps, made uncomfortable by the sudden burst of sunshine. It cast about for shelter from the fierce rays and seing a dark object on the ground, approached it.

I should, doubtless, have been fast asleep had it been less warm. As it was, I became aware of a faint pattering or crackling noise which to my dulled senses suggested that it was raining again. An instant later the sound became more distinct and I noticed something peculiar about it. Surely rain never pattered in just that way. I could plainly distinguish a faint, but constant, noise, punctuated with a sharp and rapid crackling. There was no mistaking the message that time; snake! it read. Yet, while the sound grew louder and my ears were still attentive, I seemed to reason thus with myself:

"Pull yourself together, my boy, and get up. That is a rattler and it's within 12 inches of your head; maybe it's only 6 inches. Anyway it's time to move."

Then there waved before the eyes of my imagination a newspaper on which appeared fat headlines, reading,

"Sheepherder Found Dead.
Bitten by a Rattlesnake."

Instantly I threw myself to a sitting posture, and thence to my feet. In transit I looked over my shoulder and saw the snake strike my coat. Then it retreated a few feet and coiled in the attitude of defense. Thereupon I got a few stones; also revenge for my fright.

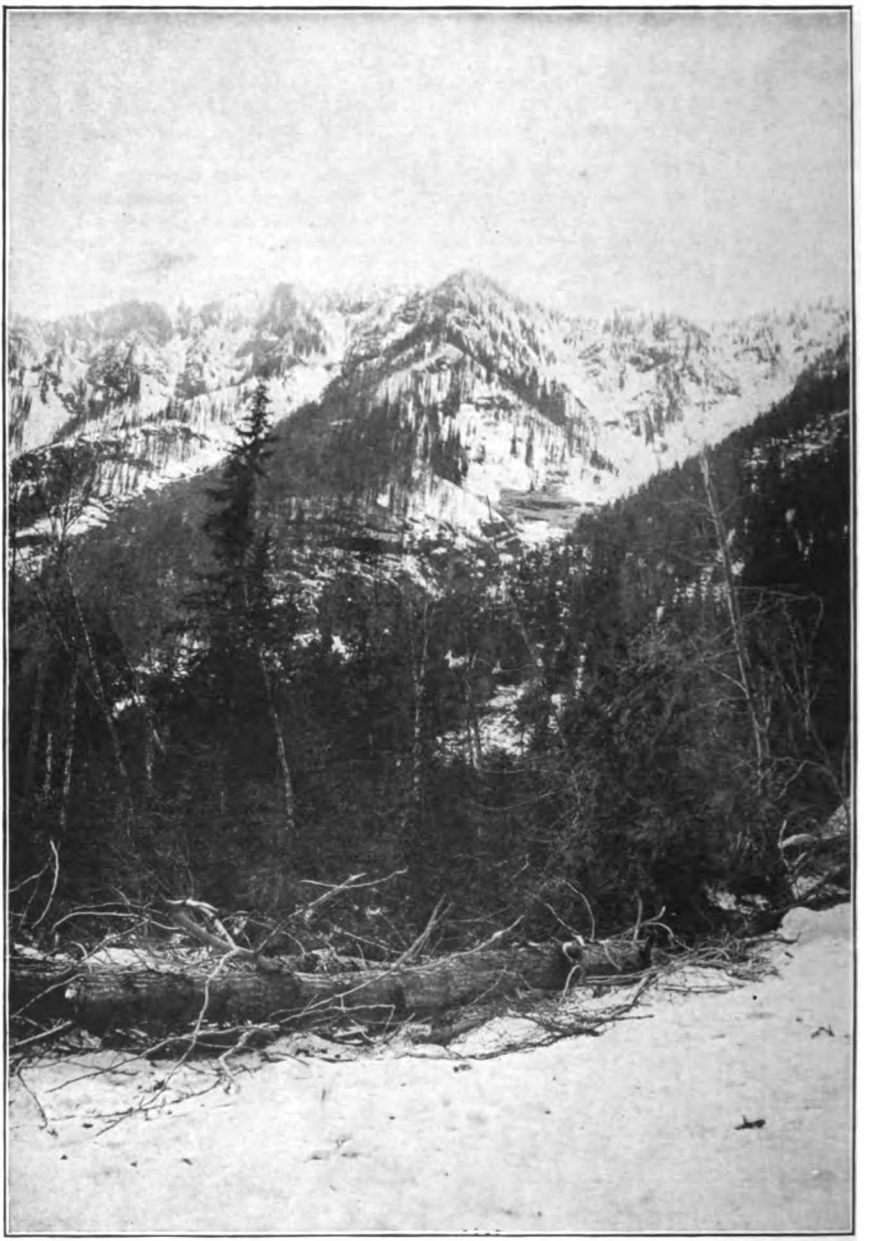
The reader may conclude that I am of an extremely reflective disposition; that I bank too confidently on the good old saw, "Look before you leap." Be it known that the time which elapsed after my hearing the first sound until I sprang up did not exceed 2 seconds, to the best of my belief. One's mental machinery works rapidly under such stimulus.

There may be others, but until they are heard from, I claim the distinction of being the only person who ever heard a rattlesnake crawl.

["Nessmuk," that delightful writer who for so many years entertained us all with his pen, tells of hearing the crawling of a rattler in his tent in the night. It must have been a most uncomfortable experience, but he tells it so naively as to provoke a smile in spite of the horror of it. - EDITOR.]

Mr. Newlywed—Isn't there any ice water, dear?

Mrs. Newlywed—I know it's silly of me, George, but you know the danger there is in germs, so I got the cook to boil the ice. —Exchange.



1. ON THE WEST SIDE OF WILSON CREEK CANYON.

This view shows the tracks of 13 separate and distinct snow slides on or near the top of the range. Several of the small gulches, shown near the summit, converge into one great gulch or canyon. Thus half a dozen or more slides come down one of these larger runways in the course of the spring.

SNOW SLIDES IN THE CANADIAN ROCKIES.

G. O. SHIELDS.

As a loyal American, I dislike to think that Canada has anything greater or better than the United States have; but candor compels me to admit that the Canadian Rockies are far higher, greater, and grander in every way than anything we have on this side of the boundary line.

In British Columbia the Rockies and the Selkirks pierce the clouds in every direction. There is probably no range of mountains on the earth that excels in picturesque grandeur and in the great number of high peaks to the square inch those to be found in that region.

My friend, W. E. Coffin, has described these as "Geography mountains." He says they are the only mountains he has ever seen that fill the specifications laid down in the old school books. In these British Columbia ranges the peaks tower almost out of sight and are sharp at the top. If these mountains ever were round shouldered, as the Rockies are in Montana, Wyoming, Idaho and in other Western States, those slopes have slipped off or worn away until now all that remains above timber line, or, say, above an altitude of 3,000 to 5,000 feet, is bare walls of granite, clad in perpetual snow, wherever there are benches or fissures to hold it. Over large areas of these great crags, however, the rock walls are so precipitous that snow can not adhere to them; so, for a greater portion of the year, the walls simply glimmer in the sun, or shade into the hovering clouds in such grandeur as to fairly chill the blood of the observer.

Some of these great columns of rock have flat summits. Others have depressions or basins on their tops, of great expanse. These are, in the main, filled with ice that has lain there thousands or perhaps millions of years. These glaciers usually dip to one or another side of the mountain, and the great beds of ice gradually drift away, though the motion is so slow as not to be perceptible. It can only be determined by careful measurements.

Other peaks, and other great mountain walls, in that country are so shaped that the heavy snows of winter lodge on them and rest there until softened by the sun or by the warm breezes of approaching spring. Then come the snow slides.

The wise men of old tell us of the 7 wonders of the world. If they had lived in this age, and if they had traveled in the great Northwest, they would have recorded another. This eighth would have been designated, collectively, as the snow slides in the Canadian Rockies.

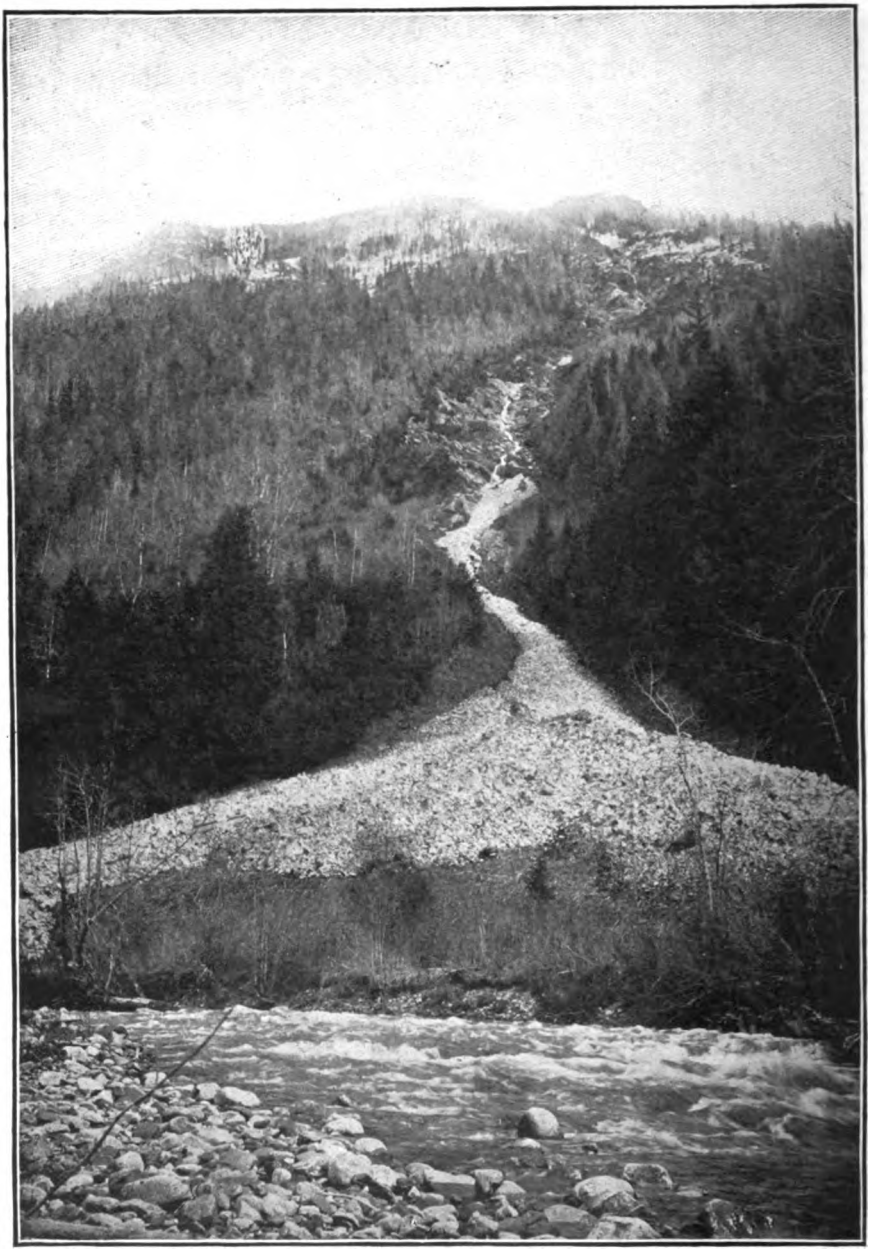
I spent a month in the Selkirks last spring and had exceptional opportunities to observe and study these marvelous phenomena. Our party went up one of the several great canyons that terminate in Slocan lake, B. C. Through this canyon flows a large mountain stream, called in that country a creek, but which in the East would be called a river. Even at a low stage of water its torrent is irresistible and appalling. It is safe to assume that this stream runs 25 miles an hour. We camped on its banks at an altitude of 3,200 feet, and estimated its fall at 100 feet to the mile.

So great is the force of the water that frequently large boulders which are loosened by it go pounding down the stream, giving forth the most doleful and puzzling sounds imaginable as they are forced along over the granite bed.

The walls of this canyon slope up to the North and to the South at an angle of perhaps 50 degrees, or possibly 60. We climbed these mountains at various places and to various heights above camp, and my friends insisted that though a man might step 3 feet at each stride he would not move more than 6 inches in a straight line ahead. I carried an aneroid and in several cases where I climbed a mile up the mountain would find myself 2,000 feet higher than the camp.

The creek bottom, wherever there is any, is covered with heavy timber, though in most cases the mountains come down to the very banks of the stream on both sides. The canyon walls are also heavily timbered wherever there is soil enough for trees to get a foothold and wherever the sliding snows have allowed the trees to stand and grow; but every here and there the traveler finds broad avenues cut through the trees, from timber line clear to the bottom of the canyon. These lanes have been cut by the snow slides, and the trees which once grew on the mountain side, varying in diameter from 6 inches to 3 feet and in length from 50 to 300 feet, have been shaved off or uprooted by the great mountains of snow and ice that have accumulated above them, and have been piled in the bottom of the canyon in the most formidable and forbidding masses ever dreamed of.

The snowfalls are much heavier some years than others, and of course the more



2. THE GREAT SLIDE NEAR OUR CAMP.

Our tent was pitched in the heavy timber about 100 yards to the left of the left branch of the moraine. A section of Wilson creek in the foreground.

snow the greater the havoc wrought when it leaves its rocky home on the summit and starts for the bottom of the canyon. In some cases the snowfall is light for several years, and the snow slides are small. Then comes a winter when the snow piles up 10 or 20 feet deep on the hills. Then look out for breakers.

In the springs following the lighter falls of snow the slides come down narrow gulches that have been worn in the rock by this process; but when the heavy snow comes these gulches overflow their banks, so to speak, and the timber that has been growing over the old slide for perhaps 10 or 12 or 15 years is swept away, and the débris added to the accumulation below.

Even the small slides bring with them some big trees that are caught here and there, and all of them bring large quantities of rock. The native granite which forms the crest of all these great mountains is more or less broken from the effects of internal heat which raged there ages ago. The water settles in these seams, freezes when the cold weather comes, and thaws in spring. This process keeps breaking off fragments of the rock, and these tumble down the mountain sides. When a bed of 10 or 20 or 40 acres of snow starts from the top of the mountain it picks up many of these blocks, and the inclined walls of the gulches gradually force the whole mass into the narrow confines of the cut. Then, as the weight and size of the mass and the degree of pitch from point to point increase, this great body moves faster and faster down the mountain side.

At intervals, along the tracks are perpendicular walls of solid granite, ranging in height anywhere from 20 to 200 or 300 feet. Imagine, if you can, a mass of snow, ice, rocks and trees coming down a great inclined chute, say 50 feet wide at the top and 50 feet deep. This chute is, as I have said, built on an incline of 50 or 60 degrees, with walls so steep you could not climb one of them at the rate of more than ½ mile an hour. The slide increases in velocity as the distance increases from the starting point. We will assume that when it reaches the first perpendicular wall it is going at a rate of 10 miles an hour, or at the ordinary speed of a slow freight train. When it takes its first perpendicular leap it goes down with a frightful velocity and from there to the foot of the mountain it moves like a hurricane. We will assume that at the foot of this first fall the same rocky chasm receives the moving mass and confines it within narrow limits. Nearly all these gulches curve here and there, and when the slide strikes a shoulder of one of these abrupt turns its velocity is checked; but as the load accumulates behind, it is forced ahead, and, going on down, it finally reaches the second perpendicular wall and takes a second plunge toward Hades. Then it moves on with increased force and terror. Finally the whole great mass of ruin reaches the bottom of the canyon, or what may be called its moraine. There the gulch ends, and the snow, being still pressed and pounded from behind by thousands of tons of other snow and rocks and ice, spreads out over a tract of perhaps 5 or 10 or 20 acres of ground.

The head of the procession has now reached the level of the creek and stopped. The great weight and the great body of snow and rocks behind keep forcing the other sections down and piling them up until, when the last of the avalanche arrives, this great moraine is covered with snow and rocks and timber from end to end, from side to side, 50 to 100 feet deep; a perfect mountain which has come down from the top of the mountain.

I wish I could describe the noise these snow slides make. Did you ever go into an old fashioned grist mill and hear the stones revolving on each other? If so, multiply the volume of sound you heard there by 10,000. Did you ever stand beneath a high bridge and let a freight train pass over your head? If so, multiply the effect of that by 10,000 and you may possibly realize the terrible uproar that comes from one of these snow slides. It is the most appalling, the most heart-rending, and the most nerve destroying of anything I have ever listened to. If there was nothing but snow moving it would make little noise; but there are perhaps thousands of tons of granite mixed with the snow, in blocks varying from the size of your head up to that of a box car. Then, in among these, are a greater or less number of logs and brush, being broken into all sorts of shapes, and some of them being ground into splinters.

We camped within 100 yards of one of these great terminal moraines. We went in before the regular spring slide had come down. In reaching our camp we crossed this vast deposit of broken granite and old logs. The mass is perhaps 200 yards wide and 50 to 100 feet deep. The trail leads across this field and winds hither and thither in order that safe footing may be found for man and beast. How long it has taken to form this deposit no one knows, but probably thousands of years.

We pitched our tent in a forest of great cedars, about 100 yards from the North edge of the moraine, partly in order that we might have a good view of the great slide when it should come. We watched for it day and night. Finally, after we had been in camp about 2 weeks, and when

8. THE BIG SLIDE 2 MILES ABOVE OUR CAMP, ON THE WEST SIDE OF THE CANYON.
Note the 2 stumps to the extreme left of the picture.

seated at dinner one night, we heard an ominous rumble from the top of the mountain.

"There she comes!" said one of the boys.

We forgot our appetites in an instant and rushed out of the tent. By that time the roar, the grinding, the crashing were tremendous. The earth trembled under our feet and the branches of the trees about us vibrated from the air currents set in motion by the great slide. We could not see from our camp ground the high precipice over which we knew the slide must plunge, and had not time to reach a point whence it could be seen; but as we stood there, looking in the direction of the fall, we saw great clouds of mist and snow rising through the tree tops.

"There she goes over the precipice," said Wright, and as the rocks landed again on the cragged walls of the gulch at the foot of the cliff the earth vibrated still more violently.

A moment later the vast wall of snow and ice swept in sight, within 200 yards of us. It was like a tidal wave on the ocean. It came in an almost perpendicular wall, 20 or 30 feet high, with the loose snow curling and foaming over the front of it. This huge white mass moved slowly, majestically, terrifically forward until its front fell on the immediate bank of the creek. Then the rest slowed up and began to spread out. It took several minutes for the last of the moving mountain to get out of the gulch and spread out over the tableland. Occasionally one section, or one line of the snow, having a greater pressure behind it than another portion, would cut a channel straight through the body that was moving more slowly, and would be forced to the front, leaving perpendicular walls on both sides of the cut, polished smooth and clean, to a height of 10 or 20 feet.

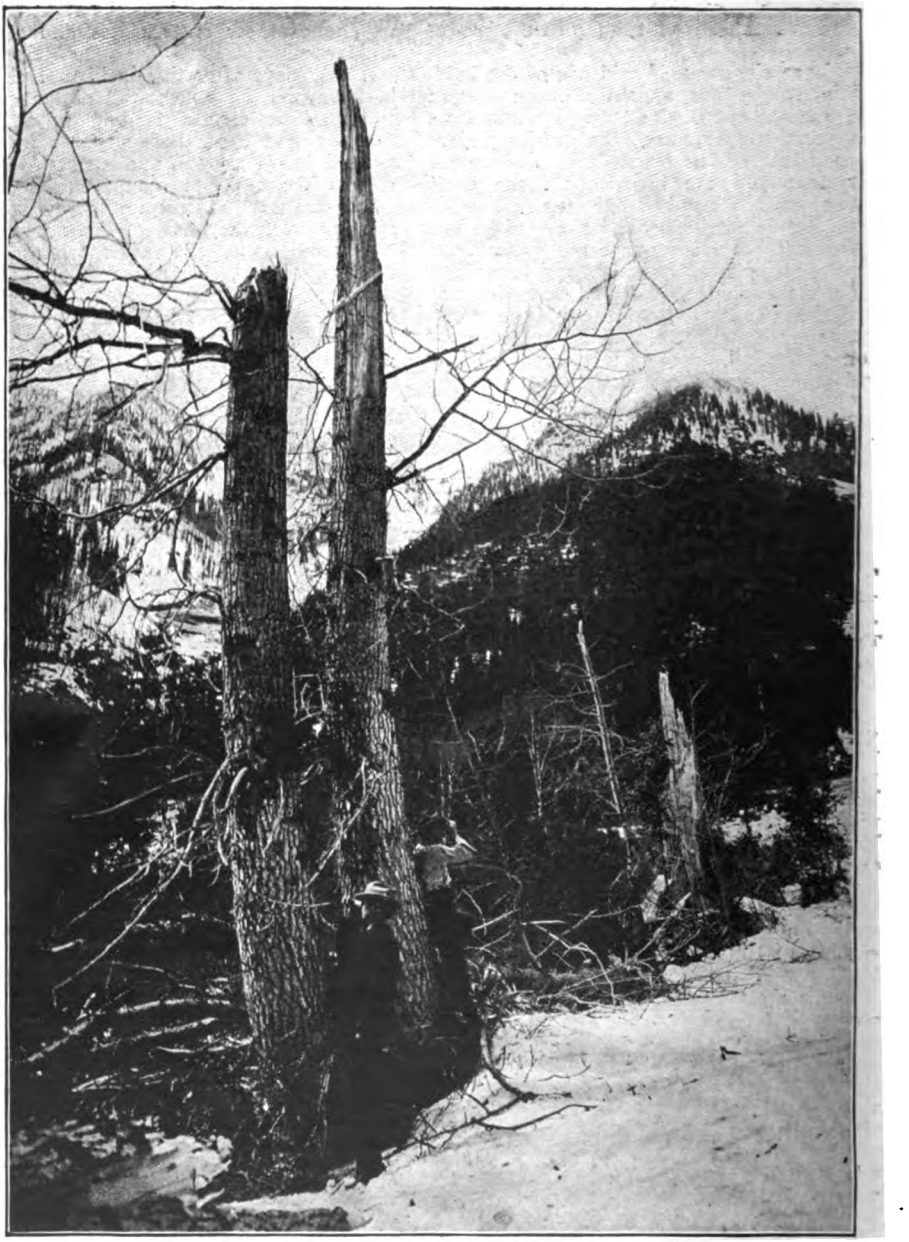
When the snow finally ceased to move it was spread from one side to the other of the terminal moraine, from the big timber on one side to that on the other side. The sight was enough to paralyze a man. We stood speechless in awe of it. We were all thinking of the same thing. That was, what a puny, insignificant creature man is when compared with the great forces of nature. If the New York post office building had stood on that moraine when the slide came down it would have been swept into the creek just as you would sweep away with your hand a house built of cards. If the Brooklyn bridge had been stretched across the right of way of that slide it would have gone down into the creek as easily as the housewife sweeps down a cobweb with her broom.

If there is anything on this earth that will take the conceit out of a man in 20 seconds it is to stand on the right of way of one of these snow slides and see the slide coming.

A few days after this incident I climbed half way up the South wall of the canyon to watch a certain feeding ground for bear. I had been there perhaps an hour when I heard a crash and a roar from the top of the opposite mountain. I looked across and saw another immense slide just starting from the basin of snow which lay ensconced against the very top crag of the mountain. This basin covers perhaps 20 acres and a gulch leads out from the lower side by it. The snow which had been softened by the warm sun was juust leaving the basin and starting on its headlong journey to the bottom of the canyon. It gathered force as it went. It gathered rocks, it gathered trees. The rocks were forced and ground against the walls of the gulch. Trees were tossed hither and thither by the changing currents of snow as a man would toss straws with a pitchfork. This gulch, like the other, winds about more or less in its course, and one of the most interesting phases of the exhibition was to see the slide checked when it came to an abrupt turn in the gulch; but in each case the pressure behind would be rapidly increased until the front of the column of snow would break loose and move on.

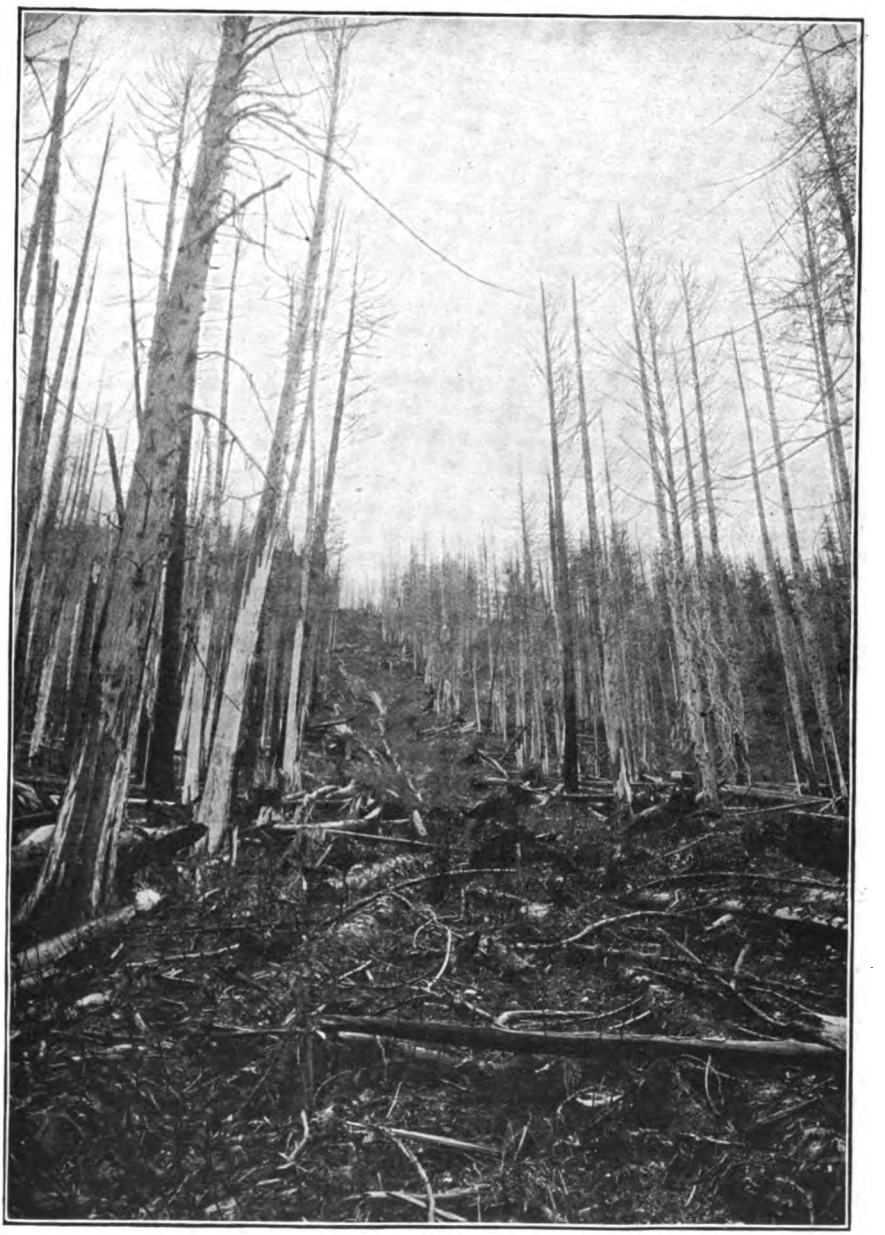
I watched this great convulsion of nature perhaps 3 or 4 minutes. In that time the slide traveled, I should say, nearly a mile, when it emerged from its narrow confines and spread out over the moraine. It split in the middle and 2 great columns of snow went boiling and surging down the opposite sides of the rock pile as if running a race to the creek below. These 2 wings finally reached their destination about the same time. Each was 100 to 150 feet in width at its terminus and about 500 to 600 feet long. The 2 wings were at least 300 feet apart at their lower ends and the snow was anywhere from 20 to 30 feet deep all through these 2 great columns.

The snow in this slide was cleaner than in any of the others we saw during the month we were there. It came from the mountain top to its field at the edge of the forest as pure and white as the day it left the heavens. I walked over these great masses several times during the next few days, and when the sun shone the whiteness and the brilliancy were simply painful. One could not endure it more than a few minutes without smoked glasses. There were many weird and fantastic images formed in these blocks of snow. There were single snowballs 10 to 20 feet in diameter. One, I remember, about 6 feet in diameter and about 10 feet high, rolled clear away from the main mass of snow and stood on its



4. THE SAME 2 STUMPS SHOWN IN THE LEFT OF CUT NO. 3.

We estimated the snow to be 50 feet deep at the point where the camera stood when this picture was made. It will readily be seen by comparing the height of the stumps with that of the men that the taller stump is at least 20 feet high. The snow must have extended 20 feet above the point where these trees broke in order to wreck them. It is therefore safe to conclude that a body of snow 90 to 100 feet deep came down this gulch when these trees were broken off.



5. WHERE THE SLIDE CUT THROUGH THE FOREST.

The lane cut through the standing timber by this slide is about 150 feet wide, and the side lines are as straight as a corps of woodchoppers could have cut them, if the work had been done under the direction of an engineer. The length of this lane is nearly ¾ of a mile. The trees average 12 to 24 inches in diameter, and the trunks are piled along the bank of the creek below. A few will be seen in the foreground partially covered with earth and rocks.

6. A SECTION OF THE LOG JAM CREATED BY THE GREAT SLIDE SHOWN IN CUT NO. 5.

end among the granite boulders. One could easily fancy among these various formations images of people, of wild animals, of locomotives, of bogy men and other weird and mysterious forms.

On still another day, when waiting on my favorite slide for a grizzly to come to lunch, I heard a roar from the mountain top back of me. I rushed out from my bed of boughs to locate the slide, and, to my horror, saw it coming down the gulch on the bank of which I stood. I caught up my rifle and started to run, but then I realized that the only safer place than that on which I stood was immediately to the South of me and up an almost perpendicular bank. This was covered with alders, mountain maples, wild cherry and other underbrush which had been mashed down time and again by the moving snows, and which was tangled and interlaced to such a degree that a man could not travel more than half a mile an hour through it if he did his best. By the time I realized this the gulch behind me was full of the moving mass of snow, ice and rocks, and the roar which it gave forth was of the same appalling nature I have already mentioned. The moving column was piled 20 feet high within 30 feet of where I stood. I said to myself, there is no use trying to escape. The slide will probably not spread out any more, and I may as well make its acquaintance at short range while I can.

I stood my ground, and within 3 minutes of the time the first alarm came the column had stopped moving and I was safe. I have been face to face with death several times, but I was never worse shaken with fright and terror than in those few seconds. Yet I was happy, for I had been next to a great snow slide while it was in motion. It is one of the events of my life that I shall never forget.

Of course these slides are dangerous, not only to people, but to wild animals. Still, if a man will exercise proper care, he need never be caught in one. The trouble is that miners, hunters and packers who associate with slides all through the spring and summer, grow careless and occasionally a man or a party of men is caught in a slide and buried alive.

While we were camped in this canyon a snow slide came down in another part of the Selkirk range that caught a pack outfit of 2 men and 16 horses. One of the men escaped, but the other man and all the horses were buried under 50 feet of snow and débris.

A few days later another slide, near Nelson, caught 4 men and 20 mules. One of the men and all the mules were killed.

The other 3 men, after being tossed hither and thither, finally escaped with their lives, but all were badly cut, torn and bruised.

Some people are killed every spring, but this is usually the result of carelessness on their part. Familiarity with danger breeds carelessness on the part of all men. Pack trails cross the paths of the slides. Men go over these trails every day in spring and summer. A man may pass over them a hundred times and not be caught; so he grows careless. He keeps on going, even after he knows the slide is due to come down. Finally it comes, just when some pack outfit or some prospector is at that point in the trail, and his friends do not see him again for probably 2 or 3 months. Every Western man knows it is useless to search for a dead man in one of these great moraines. You must simply wait for the snow to melt and uncover the body. The friends of the unfortunate watch the gradually melting mass every day for weeks. Finally they find a hand or a foot or a head exposed in an edge of the snow mountain and the body is rescued; but there is no danger of being caught in a slide if people are careful.

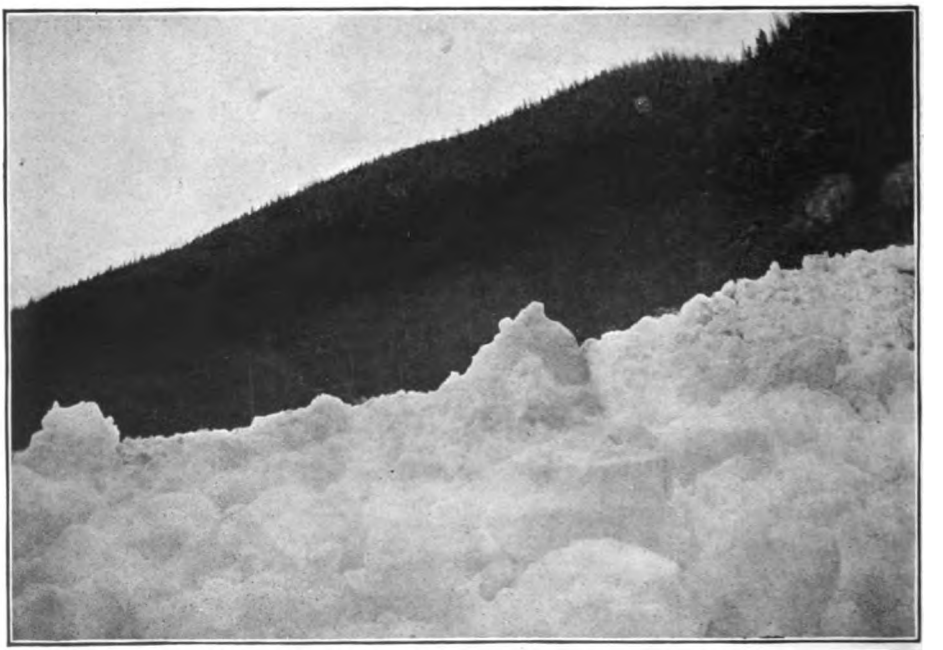
I made a large number of photographs of the avalanches and of the effect of them, some of which are reproduced here, but I have not space for more than a small percentage of them. I have had a series of lantern slides made from the best of these pictures, showing the awful work of these great phenomena, and shall take pleasure in showing them to such of my friends as care to see them.

It is impossible to get into a photograph 10 per cent of the grandeur or the feeling one experiences in playing snow slide in the Selkirks. In the first place, you cannot possibly portray in a photograph the frightful pitch of the mountains. You must tip your camera back to enable the lens to look up the mountain. Thus you get an effect almost like that produced by setting the camera level on the ground and having it look off over a flat prairie or a long stretch of level road. In nearly all the views reproduced with this article the observer is looking up mountains that are so steep a goat would have great difficulty in climbing them. In some places you are looking up perpendicular walls, where the snow slides drop straight down 100 to 500 feet; but, as I have said, the camera had to be tipped back to get the view, and that takes off the chill. Furthermore, these granite walls are usually ¼ of a mile to a mile away from the point of view, so they dwindle into miniature proportions when viewed through the ground glass. In order to get anything like a correct impres-

7. ANOTHER VIEW OF THE DEBRIS BROUGHT DOWN BY THE SLIDE SHOWN IN CUT NO. 5.

8. SECTIONAL VIEW OF SNOW, ICE AND ROCKS WHICH CAME DOWN NEAR OUR CAMP.

The outer portion of this moving mass of snow was obstructed by the adjacent timber. The inner body was forced on down, the dividing line being cut as clean as if with a great knife. The perpendicular wall shown in the left of the picture was at least 20 feet high and almost as smooth as a sheet of glass. This snow was badly discolored from the earth which was ground up with it



9. A SECTION OF THE SLIDE WHICH CAME DOWN AT THE MARMOT DEN 1 MILE ABOVE OUR CAMP.

This moraine covered about 4 acres of ground to a depth of 20 to 50 feet. The snow was not contaminated in the least by contact with the earth on its way down, but was deposited in the bottom of the canyon as pure and white as when it left the clouds.

10. A CEDAR LOG DRIVEN THROUGH A STANDING TREE, BY A SNOW SLIDE.

The log was about 18 inches in diameter and the standing tree about 6 feet in diameter at the ground. This occurred several years ago, and the ground, which was probably swept clean of vegetation at the time, is now covered with underbrush.

sion of the declivity of these canyon walls you must give your imagination full sway when looking at the pictures.

It is worth a trip across the continent any day to see one of these slides come down, and I predict that in future many people will make a practice of going to the Canadian Rockies in April or May and camping where they can see some of these things. There are numerous points where such sights may be seen almost any day, from the first of April to the middle of May. At certain points you may command a view of 10 or 15 of these great slides, and in such case you would not have to wait long to see one of them start. Any man or woman who is fond of the great or the grand in nature will say as I said when I saw the first slide come down, "This is worth all the time and all the money it has cost me to cross the continent."

THANKSGIVING.

N. D. E.

'Way down East the punkin pies
Are waitin' for Thanksgivin';
The chestnuts and the butternuts,
Oh! that's the kind of livin'!

There's turkeys sizzlin' in the pans,
There's doughnuts in the larder;
There's blushin' apples and mince pies,
And cider gittin' harder.

We'll nothin' say of chicken pies
A-steamin' for Thanksgivin',
And ev'ry sort of garden sass;
Oh! that's the kind of livin'!

UNDER ARCTIC SKIES.

L. L. BALES.

In the spring of 1900 I made the trip from Seattle to Nome, carrying a special mail. After passing through 3 successive disasters at sea, I finally reached the mainland at Iliamna bay, 150 miles Northwest of Kadiak island, May 9th. I was then 40 days behind time. It was too late for dog sleighing and too early for boating along the route I had proposed taking. Therefore I struck across the Alaskan peninsula, coming out at Koggiung, Bristol bay, on Bering sea.

Iliamna lake is 90 miles long and 35 miles wide. Its water is clear and transparent. The Eastern shore is fairly well timbered. This lake contains fresh water seals. In size they are between the hair seal and the sea lion, and they have a peculiar whitish mark on the back. They can be taken only in winter, when they come out on the ice. I left an order with the Iliamna chief for 2 skins and skeletons to be sent to the coast. There is also in this lake a peculiar fish having a bill like a duck's. It looks much like the pickerel of the East.

There are at least 100 islands of all sizes in the Eastern half of the lake, but only 3 small ones in the Western part. Several varieties of gulls nest on the islands and eggs are plentiful in May and June. Near the lake I found a deposit of fine black sand. There is a lot of quartz near, but men who claim to know say it is micaceous quartz and worthless. At one place the beach is strewn with bits of petrified bark of the soft pine. I also found many kinds of petrified wood.

Willow grouse are numerous. There are a few snowshoe rabbits, many marmots, and a few ducks and geese. On the bars of the river, which is the outlet of Iliamna lake, many water fowl were seen.

In traveled in a kayak, a skin boat used by the natives. Skillfully handled, it will outlive a ship in a storm. I saw a few bears, but little other game.

The day I arrived at Koggiung the natives were having a beluga hunt. The beluga, or white whale, attains a length of 40 to 50 feet. They go in schools, and when feeding they come to the surface every 10 minutes to blow. Before hunting them the natives paint their kayaks, oars, wooden helmets and other gear white. Soon after a school is sighted every able bodied man owning a kayak is on the bay. When a whale rises the nearest hunter gives a signal and follows it, while the others scatter in different directions. Sometimes the whales become frightened and run up high and dry on the mud flats. Twenty-five were killed the day I was there. Their skins are used for kayaks and muk-luk soles; their oil is an article of trade.

From Bering sea I went inland 150 miles at 2 different places; going up a river, making a portage to the headwaters of another, and down to the sea again. In that way I cut off capes Constantine and Newenham.

While coming down those rivers many were the mutual surprises as I came silently on foxes and other animals at play or feeding. One family of 6 fox pups and their dam I especially remember. The pups were half grown and as playful as kittens I was within a few yards when a pup scented me and ran into the brush. The mother sat staring at me until I purposely moved. Then she gave 2 short, howling barks, and in an instant all were in cover. In the same way I surprised a lynx. He showed no fear, although I was within 20 feet of him. I spoke to him and even struck the water with my paddle without causing him to flee. He merely held his head low, and every few seconds would drop it a little and wink both eyes. He kept that up until my approach fairly drove him into the brush.

In the 1,500 mile trip I saw a few fish-hawks, Siwash robins, magpies, and great numbers of violet, green, and barn swallows at every cliff. Along the coast and within the range of tide water, all the water fowl in creation appeared to breed. Even on the fresh water lakes in the tundra, hundreds of miles from the sea, they fairly swarmed.

The common rabbit is exceedingly abundant along the Kuskokwim river, from Bethel up. Willow grouse are numerous, and great numbers are snared by the natives. There is a run of some kind of fish every month in the year. The river is about the size of the lower Ohio, and is navigable 600 miles. So far there has never been a steamboat on it. It offers great opportunities for fishing stations and trading ports, and the region through which it flows is undoubtedly rich in minerals.

There is a large native population, perfectly peaceable and self supporting. I made the trip without fire arms of any kind and was everywhere well received.

THE PISTOL FROM A WESTERN STANDPOINT.

DR. E. F. CONYNGHAM.

The desire to carry missile weapons seems almost universal, and this desire has had attached to it the specifications, portability, compactness and the production of a lethal effect, this to be obtained quickly. With these was joined a fifth, that the weapon could be fired more than once in as short a time as possible. On account of these various desires we see on the old-time, single shot, muzzle loading pistol, a dagger, or 3-edged bayonet, folding alongside the barrel. That, however, was a clumsy contrivance. It was succeeded by the double barrel, and that by other plans, until from a flintlock weighing 3 to 4 pounds and firing one shot we have arrived at a weapon weighing about 2¼ pounds, shooting 8 or more times, and accurate at 200 yards.

Fig. 1. DRAW.

The first pistol I ever used was a flintlock dueling pistol. The butt was shaped something like a saw handle, and came down almost at right angles to the axis of the barrel. The square end that projected below the little finger was covered with a large silver plate with the family crest engraved on it. The sides of the butt were nicely checkered; the back and underpart were not. In front of the trigger was a screw whereby the pull could be regulated. The wood of the stock extended within a short distance of the muzzle and had 3 silver headed push pins that extended clear through to hold the barrel in place. There was no groove for a ramrod. The barrel was made of what we to-day would call London twist, and it was slightly grooved The case contained another pistol exactly the same, a cleaning rod, ramrod, vent pick, loading mallet, bullet mould, space for bullets, 16 to the pound, powder horn, space for sand paper for smoothing bullets, and a copper bottle for holding oil. The whole outfit was made by a gunsmith on Dame street, Dublin, Ireland, and the pistols were beautiful weapons. I never saw modern arms that came up to them in finish. Harkom, of Edinburgh, Scotland, has a pair of gold and enamel, once the property of some Highland chief, valued at 80 guineas, over $400 of our money. They are truly Scotch. No wood enters into their construction. They were worn at the coronation of George IV. I regard them as the handsomest pistols in existence.

Between my first and last pistol I have owned many, of all makes, calibers and descriptions, with all sorts of shapes and weights of bullets. My advice to anyone thinking of buying a pistol is the same *Punch* gave about matrimony, "Don't;" but if you must "pack a gun" buy a cannon and carry it in a scabbard, like a man, not a small thing concealed in your pocket, like

THE DROP.
Figure 2.

a sneaking coward. Should you be compelled to use a pistol the biggest will be none too big, and its appearance alone may possess such moral suasion that you will not have to use it.

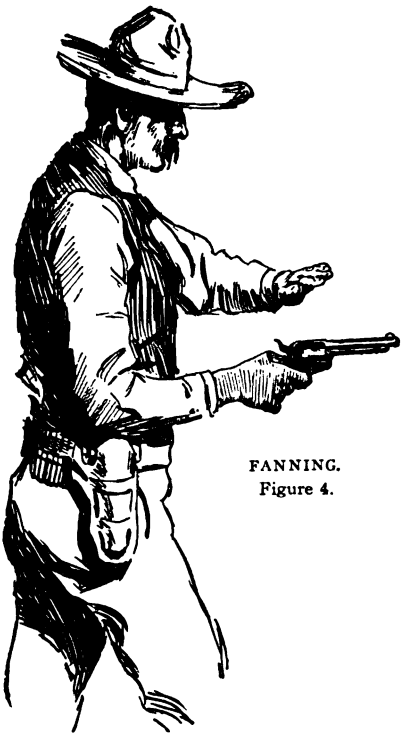
In wearing a pistol learn to carry it in exactly one place. Have the scabbard riveted to your belt just where you want it; or wear 2 rifle cartridges, one on each side of the scabbard, and then wear the belt buckle exactly as you wish. Do not have the belt on the waist, but just below the tops of the hip bones. Put your gun in the scabbard and be sure the notch in the leather coincides with the trigger guard. If not, cut it out so the forefinger will easily drop on the trigger, for it is by this the weapon is drawn. I do not mean a double action, under any consideration; they are not sufficiently safe for a belt. Remove with a file the roughness on the top of the hammer and then smooth with emery.

Put on your gun unloaded. Holding your hand open, thrust your forefinger through the trigger guard (Figure 1), pull upward and forward until the gun is opposite the face, throw the thumb across (Figure 2), and give the barrel a quick flirt downward, at the same time pushing the arm forward. The pistol is then cocked and in position for firing (Figure 3). If your hands are soft and the roughness is not taken off the hammer, you will have a sore thumb after doing this 12 or 15 times. Hold the arm well out from the body, almost but not quite straight. With an angle in the elbow the arm trembles. Grip the butt well up toward the hammer, incline the head slightly toward the pistol, and as your eye gets the sights in alignment with the object make a steady pressure with the forefinger until the hammer falls Should you have a cartridge in, let the recoil carry the barrel up, throw your thumb as before and repeat the former motions. By doing this you make the gun work almost automatically.

There is a system whereby you may discharge a single action more rapidly than a double and with more accuracy. It is termed "fanning." Bring the pistol up to the waist line, or a little higher, holding the whole arm and hand rigid (Figure 4). With the other hand open strike the hammer briskly at the same time the forefinger of the right hand holds back the trigger; or it can be tied back. Better still, when you are accustomed to using it that way, take the trigger out. For using either system described a trigger is not necessary, but for target shooting it must be used.

Never give your revolver into any person's hands, loaded or unloaded.

HANDS UP.
Figure 3.



FANNING.
Figure 4.

Do not carry it on the safety notch. Put the hammer between the cartridges or else on an empty chamber.

Do not let your pistol go 24 hours without cleaning, after using.

Do not practice the motions with it loaded.

Do not use factory ammunition. Buy the best shells and powder you can and load them yourself, starting with a 5-grain powder charge. The Ideal tools are satisfactory.

Do not shoot at a fixed target. Get something moving. A tin can supported by a string is good; or shoot at something from a buggy or horseback and mark in your mind's eye where the ball strikes.

Do not be discouraged. Keep practising.

Do not get a pistol that carries a bottle-neck shell. They are not good to reload with small charges.

Do not buy a gun with a longer barrel than 5½ inches. They can not be quickly drawn.

Do not buy a cheap weapon; get the best money can buy. Any is an expensive luxury.

Do not get a nickel plated abomination.

Do not drink intoxicants and pack a gun. They make a bad combination.

THE HUNTER'S REGRET.

KENSETT ROSSITER.

The woods were drear, 'twas a dismal day
'Neath a lowering sky of leaden gray.
Like the sea's wild sound, the pine trees' moan
Filled my ears, as I trod the woods alone.

I had traced their tracks with eager stride
O'er bog and mead and mountain side,
Till at last, outlined 'gainst the virgin snow,
On the streamlet's brink stood the buck and doe.

I aimed, I fired, and the buck lay dead,
Pierced deep by the hunter's cruel lead!
The doe fled off in the woods alone,
To bleat all night 'mid the pine trees' moan.

Yes, I had won; I had won the chase;
Yet I turned aside with a saddened face.
When I saw the look in those mild, brown eyes,
My heart grew dull as the lurid skies.

I trod along down the old tote-road,
On my way to camp, with my heavy load;
But the load on my heart will longer live;
I had quenched the life I could never give.

A GALPIN HILL RABBIT.

G. R. PECK.

"When a cottontail rabbit can furnish a man 3 hunts it is certainly a rubber rabbit, isn't it?" said old Si Van Netten to the crowd in the gun store.

"That depends on what kind of a man is after the rabbit, doesn't it, Si?" asked one of the boys.

"Well, I don't know as it is that, so much; sometimes it seems just luck. I'll tell you how it was. I was walking along near Auburn, N. Y., one day last fall. The season had hardly begun, but there was a hint of red and yellow in the leaves and a suggestion of haze in the air that made one think of gunpowder and game.

"I was on the ridge partly for exercise and partly to see if any cottontail had escaped the bag and ferret hunters who always infest the vicinity of towns. I had an old gun with me, not a flintlock, but still not an ejector. Best of all I had 2 hounds that could run a rabbit and loved to do it. It was late in the afternoon. The woods and underbrush wore their pleasantest smile and it was a privilege to be afield even if nothing in the shape of game turned up. There was the sweetest of odors in the air, and the sky was a dome of clearest azure, whether one looked to the North, where the smoke rose lazily from Auburn chimneys, or Southerly, toward the glassy lake. Little cedars were trying to live on sand and air and be somebodies in the tree world, and old apple trees in a hollow were bending beneath their load of sour and nubby fruit.

"While I was looking about, the hounds had been busy. Before long a note of warning from them gave me something else to think of, and I looked at the caps on the gun to see if they were all right and in place. The warning note was quickly followed by another, and I hurried to the edge of a path that I thought bunny would be likely to cross, because others in days gone by had crossed there. The hounds, in full cry, swept through a portion of the cover, out into the open and up the hillside through the woods to the top of the ridge. Then I knew the rabbit must be near me and that if he turned to the East he must follow the path near which I stood. Sure enough, the hounds turned my way, and about 3 rods ahead of them I spied bunny loping leisurely along as if in no fear of the dogs. As I raised the gun he saw me and fairly cleaved the air in a break for safety. The charge of shot damaged the golden rod behind him and the longeared hermit of Wintergreen hill was lost to view in the cover. When the dogs came up and asked for a look at the quarry I was compelled to confess my poor markmanship, and so in disgust all 3 of us left the hill for home. As I trudged to the road I thought a live rabbit had more interest for me than a dead one after all, and I was happy in the expectation of at least another day's pleasure on the hill.

"It is a mighty smart cottontail that can get away from you Mr. Van Netten," said Nance Cantelle, as he moved a little nearer the fire. The remark was not lost, and the gleam of pride that came into old Si's eyes showed his appreciation of the compliment.

"I went up there again a few days later," he continued, "and hunted all around Wintergreen hill, and as far to the West as Galpin hill. There the dogs routed out a festive young buck rabbit and chased him around the lot and back again. I could see the whole run, and it was worth seeing and hearing, too. When, at last, Brer Rabbit holed up, he was safe from me, and the game was over.

"It was about a week later when I again visited my happy hunting ground. Thinking I knew just where to look for bunny I went to Galpin hill; but as the dogs could not start our old friend we proceeded toward Wintergreen and there jumped him in cover on the hillside. That time he was taken by surprise, to judge from the music of the hounds, for both bayed from the first and both at the same time. It was a hot and merry chase, until I saw bunny and put an end to the whole business with oue barrel. I was sorry almost as soon as I had pulled the trigger. When he was dead the place seemed desolate. Nothing is there now that is attractive except the view and the little stunted cedars among which rabbits used to run."

Love never laughs at goldsmiths.—Exchange.

A GIRL AND A REVOLVER.

JACK PATTERN.

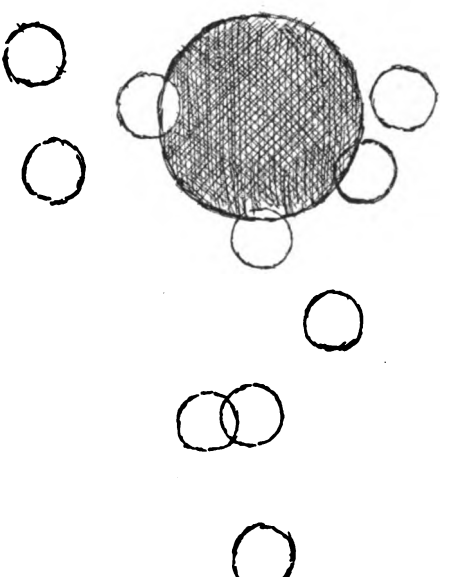
Miss Creedmoor is the daintiest bit of womankind that ever drew trigger. Tommy is a disreputable specimen of the *genus* small boy. One Sunday morning Miss Creedmoor, Tommy, the revolver, the camera and I all started for the shore of

HER FIRST BULL'S EYE.

Newark bay. Miss Creedmoor is a born shot; that is, she has natural sense of direction and is capable of becoming a champion some day. Chevalier Ira Paine used to say one had to have a little of the devil in him to win with the pistol. The Chevalier was right to a certain extent, but Miss Creedmoor has a quality that is every bit as useful as deviltry; a cool, placid temperament. She is not disturbed if she misses the whole target, nor does she show the least elation on making a bullseye. As she has also perfect eyesight, steady nerves and good physique, she needs only practice to become a great shot.

Up to the Sunday morning mentioned Miss Creedmoor had not fired over 35 shots in her life. I had previously given her one lesson in the handling of a revolver. The weapon, a 44 Russian, single action, was made especially for target shooting, with light trigger pull, 6½ inch barrel and Paine sights. The ammunition was the usual gallery load for the 44 Russian, 7 grains of ffffg. powder and a round bullet. This load gives practically no recoil in a heavy 2½ pound revolver. The grip of this revolver is unfortunately much too large for Miss Creedmoor's hand. She is scarcely able to secure a comfortable hold. That must be taken into consideration in judging her work.

On arriving at the shore we set up the target against a high bank of earth, a perfect natural butt. I then hauled out the shooting paraphernalia, loaded the revolver, and gave Miss Creedmoor her instructions: Stand in an easy position, right foot pointing at or a trifle to the left of the target, feet turned out naturally, heels not over 8 inches apart, left hand resting on the hip or hanging as desired. Grip the revolver in the right hand, rest the right elbow against the body, point the revolver a trifle upward and to the right, and cant it about 45 degrees to the right; loosen the grip, throw the thumb well over the cocking piece of the hammer, keep the forefinger extended and let it slip through the guard as far as convenient, but do not let it rest on the trigger. Cock the revolver and shift the hand back to the proper grip. On the model of revolver which we were using the perfect grip is obtainable; that is, in my opinion. The portion of the hand between the thumb and forefinger should just touch the thumbpiece of the hammer and the thumb should be fully extended beside the hammer, of course on the left side, and in line with the barrel.



10 SHOTS AT 15 YARDS BY MISS CREEDMOOR.

Grip lightly, almost loosely, the hand rather supporting than holding the revolver. Keep the arm perfectly straight and bring the revolver slowly up to the target. Try to get the top of the front sight level with the top of the U in the rear sight and just touching the bottom of the bull. Pull the trigger by a gradual squeeze of the whole hand. While cocking the pistol take several deep breaths and take a deep one while bringing it up; then do not breathe again until the shot is fired.

Miss Creedmoor did all this as if she had been at it all her life. If you let beginners have their own way they usually wave the revolver around their heads, cock it with a snap, flourish it some more, finally point it somewhere toward the target and let go. The bullet goes anywhere except within 45 degrees on either side of the target, unless, perhaps, the novice keeps too much pressure on the trigger during the preliminaries and fires up in the air. Miss Creedmoor's first 6 shots were thrown around a 2-foot circle. After that she steadied down and made the most remarkable 10-shot group I have ever seen, all things considered. Bear in mind that when she commenced this group she had only fired 35 shots in her life, and that the grip of the pistol was absurdly large for her hand. Needless to say I was delighted with her work.

We took about 19 photos, all of which turned out to be silhouettes, and then cleaned the pistol. Miss Creedmoor insisted on cleaning the cylinder while I was wiping the barrel. She did it well, too. I was surprised. A woman generally cleans a gun with about as much gumption as she sticks a fish-hook through a worm.

THAT PESKY POLE.

A. L. VERMILYA.

Let us go and snatch that old North Pole bald headed,
Let us bring it home, and stop the blooming show;
It's a nuisance and a menace to the nation
While it sticks there in a bank of Arctic snow.
It has dodged around and cheated us too often,
Now we'll go and fetch the wily thing away;
We will set it up in town,
Paint it blue, or green, or brown,
Nail it to the earth and never let it stray.

For that skittish Pole has been a lot of bother,
And we've had to rescue someone every year
Who had gone to rescue someone gone to rescue
Someone else who'd journeyed to that region drear;
So we'll pull it up, and try to stop excursions
To that country of eternal snow and gloom;
For it's not a pleasant land,
Where there is no German band,
And the sweet magnolias hardly ever bloom.

On its top we'll find the bear and dodo sitting,
But we'll pull the pesky thing up by the roots;
Then we'll have no stubborn pilgrims up there trying
How to live all winter on a pair of boots.
This will throw exploring fellows out of business,
And for them we shed a large and salty tear;
But although they like to roam,
They'll be better off at home
Than up North among the icebergs cold and drear.

But most like they'll find excuse for exploration
After we have brought away that artful Pole;
They will want to see just where the thing was growing,
And will go and search around to find the hole.
They will try a shorter cut to Indo-China,
If they possibly can squeeze or wiggle through;
And with reindeer, dog or goat,
Big balloon, or tin-clad boat,
They will still go hunting round for something new.

TRAPPING THE MINK.

J. A. NEWTON.

In some respects the capture of mink affords the trapper the greatest possible satisfaction. Under proper conditions the animal is not difficult to catch; his skin brings double the price paid for a large prime coon, and because of the small size of the mink the pelt is much easier to remove and stretch.

No matter what his pretensions, each trapper of any note has his specialty, in that he is most adept in trapping one peculiar kind of animal. One may be an expert in catching muskrats and a bungling mink trapper. The methods I use I have learned from specialists, and have thoroughly tested. At first I tried digging out the secrets of successful mink catching alone, except that I patterned to some extent after the work of ordinary trappers.

Mink may be taken successfully with bait only late in the fall, while water is yet open, and after it has grown so cold as to limit the supply of their natural food, such as moles, mice, frogs, fish, crawfish, etc. No other bait is so effectual as muskrat meat. Place the trap next to the shore. If it be behind a rick or driftwood, an overturned root, or under an elevated log or overhanging bank, so much the better. Set it half an inch under water, and place 2 or 3 water soaked leaves carelessly over it, weighting them down with a pinch of mud to hold them in place. The trap should always be set where water grows deep rather abruptly, so that an animal may drown when caught. When the trap has been set and staked full length of chain in deepest water, a portion of muskrat flesh is posted on a stick over deep water, a foot from the trap. Choose a stick having a prong near the top to keep the bait from sliding down. If the mink attempts to reach the bait without swimming, which he usually does, he is generally caught while treading in the water's edge.

Sometimes certain mink avoid posted baits. Especially is this the case with those that have been nipped by traps. This fear of posted baits is often noticed in the small female mink found living on the smallest brooks. For such animals, instead of posting the bait I pin it down to the bank with a pronged skewer and use only a small quantity of bait, say a single muskrat leg. This is infallible if bait is noticed at all. The bait is to be placed but a few inches above the trap, which is under water as before mentioned.

In midwinter when all water is frozen and mink are running on ice in swamps, their travels seemingly aimless, bait is of but little use. It freezes hard, has but little scent, and is usually refused when found. From February 1st and in spring, bait is worse than useless. The animals are neglecting the matters of food then; it is the mating season, and bait only serves to make them avoid a trap. At this time traps must be placed in established runways and covered lightly with snow; the chain to be stapled to a bush. If there is no snow, or if it should thaw during the day and freeze at night, covering with snow will not do, as a crust will form preventing the trap from springing. Under such conditions traps must be set under overturned roots, using dry dirt for a covering, or under logs and brush piles where the trails indicate the most travel, and be covered lightly with material matching the surroundings. If under a brush heap among leaves, use leaves for cover; if under a decayed log, use dry powdered rotten wood.

In running time every hollow log will be inspected and traveled through by mink. When setting a trap in a hollow log, use dry worm dust for the covering. In all cases cover with material to match the place of setting.

The most valuable suggestion I ever received came from a French Canadian trapper known as "Old Max." I had been obliged each year to see winter begin with a number of bait-shy mink still at large in my territory. Max volunteered to make a trip with me just before fall trapping ended, to let me into the secret of success where others failed. As we came to one of the creeks I had been trapping and on which were still 2 mink I had given up hope of catching, Max said:

"I don't see what you want of bait here. I can catch every mink that goes up or down this creek."

The banks were high in many places and were often undermined. Max took one of my traps and wading out in the creek, next to an undermined bank, bade me follow.

"Do you see mink tracks in under there?" he asked.

"Yes," I replied, "I have had a trap there right along and kept it freshly baited, but couldn't catch them."

"That's the trouble," said Max, "you don't want any bait for a shy mink; they give your trap a wide berth. I'll show you how to fool them."

Taking the hatchet Max dug down the bank where a point came nearest to deep water, so as to leave it too steep for a mink to climb.

"A mink is sure to go under this bank," said Max. "I've fixed a place where the steepness of the bank will crowd him in the trap. If you had a bait stuck up he either wouldn't go under or else would swim around the whole business. So I dig out enough to leave the trap barely under water. Now I'll put an old leaf or 2 and a little mud on the trap and drive the stake down until the top is under water." Max set one more trap in a similar place and said:

"Now don't come here for a week and then see what luck you have."

I did as directed and when I visited the traps each held a drowned mink standing on its head in deep water.

No mink ever lived but could be caught in the way shown by Max. This method is known as a "blind set," and is exceedingly successful. The No. 1 trap is large enough for water sets; but in winter when making a dry set it is, with its covering of snow or other substance, apt to clog in springing, thus throwing out the mink's foot. For that reason the No. 1½ trap should be used; it will clear itself, and takes a hold so high that the mink can not escape by foot amputation.

Mink should not, as a rule, be caught in the Middle and Eastern States earlier than November 15 nor later than March 15. In the first case they are still unprime and in the latter are badly faded in color, and have begun shedding. Soon after this the skin turns from its winter color of red and white on the flesh side, denoting primeness, to black, which is caused by the roots of innumerable hairs that are apparently pricking through, and the fur itself soon becomes thin.

AMATEUR PHOTO BY HENRY P. MORTON.

FAREWELL TO SUMMER.

If you find it impossible to tell twins apart, tell them together.—Scissors.

ROSS AND THE CINNAMON.

O. FRODUL.

Our friend Ross, near Three Rivers, thought last year that the bears were too familiar with his mountain home, so not far from his house he set a No. 6 Newhouse 42-pound bear trap, with a 10-gallon honey keg nearly empty in front of it, setting it so the bears could reach the trap only from one side. The next day Ross visited his trap, but found no bear nor any bear sign. Two days later he visited it again, and when getting near the trap he heard some suspicious noise. Going softly to a spot where he could see the trap without showing himself, he saw a 300-pound cinnamon bear sniffing and smelling around to locate the honey perfume. He finally succeeded, and licking his nose and mouth with great gusto he went toward the trap and honey keg. When he was in front of the trap he looked at the spot with great distrust. He was evidently suspicious. He did not seem to understand why anyone should leave an open keg containing sage honey in the woods; but the honey was there and smelt tempting. He went closer, carefully avoiding the trap, as if he knew there was something wrong. Finally one more step, right beyond the trap, and he could reach the honey. He put his head into the keg. Surely, it was fine honey; not much of it, but it was good, natural unadulterated sage honey, of California bees. Licking his mouth and his nose, he was so satisfied that he forgot the whole world, and putting his head again into the keg, he sat down right on top of the 42-pound No. 6 Newhouse bear tamer.

With a terrible growl the bear sprang high into the air, with the honey keg over his head and the big trap fastened to his hindquarters. With a loud yell Ross also sprang up, forgetting all precautions. However, none seemed necessary. The bear already had the top of the keg broken to pieces and the body of it was hanging on his neck like a large collar. He had also torn himself loose from the trap, which was fastened with a chain to a tree, sacrificing a valuable part of his hindquarters. He did not wait for Ross. Bleeding freely he disappeared in the brush, and all Ross can show for his adventure is the part of himself which the bear left as a memory. That bear never showed up again. He was branded and could be easily recognized among thousands.

A DOG'S STORY.

LAURENCE MOTT.

I wondered why my master went a-walking every day,
Down in a certain shady lane, not very far away,
But now I know. He waited there a maiden fair to meet,
And last eve as she tripped along, with footsteps light and fleet,
There came with her a noble dog—a greyhound, tall and slim;
We made friends, and he was so nice I grew quite fond of him.

"Comrade," the greyhound said, "where is your pleasant master bound?"
"Just here, good friend," said I; "he comes to wait upon this ground
Your mistress fair and young to meet, I am not certain why,
But think he loves her very much, for I have heard him sigh
When he has failed to meet her. But my friend can you tell me,
Does your fair mistress care for him, or does she strive to see
How many hearts her smiles can break, how fill men's souls with pain,
By casting their true love aside with cool and proud disdain?"
"Just look!" the greyhound said; the scene that met my eyes
Accorded well, it seemed to me, with June and summer skies.
My master's arms about the maid, her soft cheek on his breast,
Upon his face a happy smile; on hers, a look of rest.
"Let's go," said I, "it is not meet that e'en our eyes should see
The kisses that these lovers give beneath the maple tree."

THE DAY BEFORE HATCHING.

I send you herewith a picture of a woodcock on her nest, which I made the day before she hatched. I found the nest the 22d of May, photographed it the 23d, and the 24th she had hatched and gone.

I took Arthur Parker and E. C. Becker on the 24th, to take another photo, but the bird had gone.

This is the best photo I have seen of a woodcock on nest. Have followed the

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My camera was only 3 feet from her. One of the legs was only 8 inches from the nest. She was so mad you see her bill was open.

I placed my hand on the bird, as I left her, and said:

"Old woody, I'll see you tomorrow."

woods 30 years and this is the 7th nest I have found in all that time.

Since our new law has gone into effect all game birds are increasing in this locality. In fact, some species are now plentiful.

Henry A. Morver, Worcester, Mass.

Teacher—Johnny, can you tell me how iron was first discovered?

Johnny—Yes, sir.

Teacher—Well, tell the class what your information is on that point.

Johnny—I heard pa say that they smelt it.—Four Track News.

DUCKING ON THE RAPPAHANNOCK.

STEVE.

It was the first week in November, and I longed for a hunting trip. While wondering where I should go, I received an invitation from my old friend Peter Sheldon, to visit his home on the Rappahannock. Peter and I had hunted together many times, having been neighbors before I moved to Baltimore. I was willing enough to return to my former home for a time and at once began to get ready. My Winchester repeating shot gun was carefully packed. Next came a new .303 Savage rifle, which I was longing to try. Then I put in my little 22 caliber just for fun at the target. At last I was ready to start and boarded a South-bound steamer.

The next morning I was up and on deck just as day was breaking. We were then nearing the mouth of the Rappahannock, and already ducks could be seen. As we entered the river a bunch of mallards flew within gunshot of the steamer. I watched them until they disappeared in the haze near the shore. Soon I espied a large flock of geese about a mile away, and I began anticipating a larger time.

I reached my destination about 11 a. m. Peter was at the wharf to meet me; so was old setter Doc and little spaniel Bess. Old Sam was also on hand to drive us to the house, his honest, black face agrin from ear to ear.

We soon reached Peter's house, a typical Virginia homestead, facing a creek. From the porch I could see the Rappahannock, which is about 5 miles wide at that point. Peter pointed to a 15 acre field of stubble with a strip of buckwheat alongside and said there was more than one nice bunch of birds in it for us to tackle when we tired of ducks. After supper I showed Peter the new Savage and he agreed with me that it looked as if it would shoot when called on. Peter said we would better take the canoe in the morning and have Sam sail us up the river if the wind was favorable; if not, we could go out on Yankee point and try the ducks from a blind. We were early aboard the canoe, a 20 foot craft and a fast sailer, with lots of room. At last we reached a small inlet that led us to the river. Sam set the foresail and we took our positions; I in the bow with the Winchester pump gun and Peter amidship. There was a steady breeze blowing up the river and every little while I would get a dash of spray behind my collar. Presently I saw a bunch of mallards and gradually drew nearer. Sam pointed the canoe a little to one side to give Peter a clear shot. I took the nearest duck to the left; missed with the first barrel and dropped him with the second. Peter scored one with each barrel of his old Parker.

Sam ran the boat up to the ducks we had dropped and brought her up in the wind. Little Bess was all of a tremble. Peter dropped her overboard and she soon had the birds alongside.

Then Sam saw another flock nearer shore, and stood in for them. Before we reached them a big flock of redheads came down by us. Peter scrambled to the other side of the boat and we had some fun. I dropped 2 with the first barrel and one the next. Peter got 2 with each barrel. It fairly rained redheads, but they were close and well bunched. Bess was barking and ready for a jump, but the water was too rough; so we sailed around and picked them up. I had to shoot a cripple that was doing his best to get away.

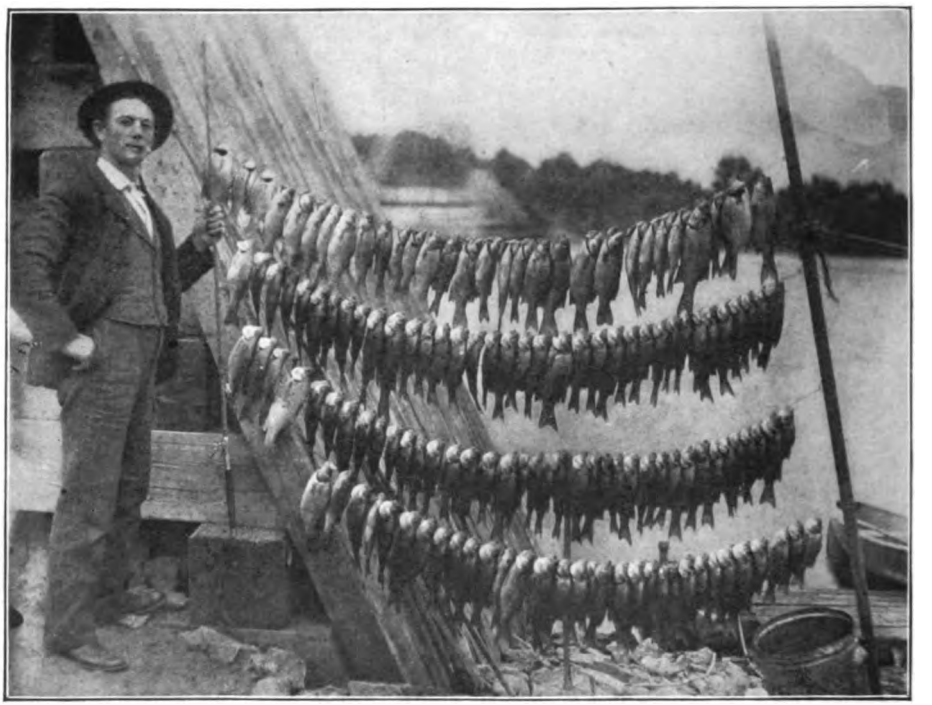
Then we headed for Yankee point, which extends about 200 yards and is covered with grass waist high. It forms a cove where the water is usually smooth, and is a grand feeding ground. Sam ran the canoe ashore South of the point and we took out the guns, including the Savage. At the edge of the bluff overlooking the cove we peeped through the grass. We saw several hundred ducks just out of range. We went back to cover, filled our pipes and concluded to wait a while to see if the birds would come nearer shore.

I was lighting my old briar when I heard the honk of a goose, then a whole chorus of honks. About 8 geese dropped just outside the point, in full view. They got up again and came inside the cove, but were still about 200 yards away. Peter told me to try the Savage. I left the peep sight at point blank range and used the large aperture. Then I picked out a goose; the light was fine and a goose makes a good dark target with the ivory bead sight. The gun was loaded with regular cartridges. I rested the rifle on an old stump, aimed a trifle high and pulled the trigger. Away went all the birds except one goose. He seemed trying a double shuffle, but soon lay quiet on the water. When we pulled him in we found that he was shot through the neck.

During the remainder of my stay we hunted everything there was to hunt; quails and ducks mostly. We had a few coon hunts with Sam; and on rainy days we read and smoked. I had the goose mounted after reaching home, and when I sit in my den and look at the result of my first shot my chest expands about 7 inches.

A WISCONSIN BRISTLEBACK.

I send you a photo of myself and 138 black bass caught by me at Prescott, Wis., one morning, about 2 blocks from our hotel at the foot of St. Croix lake. I also caught at the same time 52 skipjacks which



are not shown in the picture, as we forgot all about them. They lay in my boat to the right of the picture. I was seen from the shore, by a number of people in our town, when I was making this catch.

Chas. H. Stapf, Prescott, Wis.

ANSWER.

It is a pity some of the people who saw you slaughtering black bass at this disgraceful rate did not chuck a load of buckshot into you. That is about the only kind of medicine that will cure the disease with which you are afflicted, and the sooner someone administers it to you the better it will be for the decent anglers of your region, and for those of the country at large.—EDITOR.

"That little minnow," said the first fish, "seems to have got a big opinion of himself all of a sudden." "Yes," replied the other, "he managed to wriggle off a hook this morning, and then heard the fisherman bragging about his size."—Four Track News.

THE NEW YORK DEER LAW.

JAMES M. GRAVES.

Let us cling with all tenacity to the motto you suggested: "Stop spring shooting! Stop the sale of game!" Why spring shooting was ever allowed is a mystery to me. I never pass bunches of ducks or snipe hanging in market at that season without involuntarily beginning to compute the number of birds less in the fall that will result from such slaughter. I do not mean to imply that I have never shot such birds in the spring. It takes a lot of hard thinking and self-sacrifice to abandon a pleasure sanctioned by law and being pursued with zest by your friends and others. Last spring, however, I shot a dusky duck and on dressing it found a bunch of newly formed eggs. I took an oath then never again to shoot a game bird in the spring, law or no law.

A theory has been advanced by some and denied by others that certain of our ducks would nest here if let alone in the spring. It is not uncommon for dusky ducks and teal to nest in this section. I have seen many a flock of ducklings in the marshy brooks of my native town on the St. Lawrence.

It seems a pity that a good law can not be given a chance to prove itself. When the Ives law was passed prohibiting hounding and jacking for 5 years, why was it not let alone for the time designated? It was the general opinion among sportsmen that deer were on the increase under it, and what more could we want? But no; it must be monkeyed with. The term is not elegant, but is most appropriate for much of our game legislation.

With the ostensible purpose of protecting deer, the August shooting was cut off. While this meant protection to some extent it would have been 10-fold greater had the November shooting been cut off instead. Or, if they were bound to cut off the first 15 days, then cut off the last 15 also. The people who visit the Adirondacks for camping and hunting are not fools. They know that in 3 years out of 5 the conditions are such that more deer can be and are killed in the 15 days of November than in all the rest of the season. That game law is best which furnishes most protection to game and gives pleasure to the greatest number of sportsmen.

By cutting off the August shooting a larger number of people are deprived of the sport. They have no other time at their disposal; and as a whole they are persons who have as great a respect for the law as any other class, if not greater. For a law to be of any avail it must appeal to the judgment of the majority affected by it. It must be reasonable, otherwise the whole standing army would be necessary to enforce it.

The persons thus deprived would swallow their medicine with good grace if they knew it was bringing the most protection to the deer; but they know it is not. They know that 5 deer are killed in the 15 days of November to one in the 15 days of August. A law of this nature breeds contempt for and disregard of itself. I know whereof I speak. I have not missed a summer in the Adirondacks for 12 years and never had I seen the laws so well and cheerfully obeyed as during the summer just preceding the cutting off of August shooting. There was a growing belief in the efficacy and justice of the law.

On the other hand, I never saw such an utter disregard for the law as during the season just past.

Any 10 year old boy can sharpen a stick and go out and kill a deer on soft snow. The first snows usually follow a heavy rain which has so saturated the leaves as to make them practically noiseless even before the white mantle completes the work. The hunter can select his deer from the size of the track and strike out with a definite aim in view. His moccasined feet make as little noise on the soft white cushion as the blade of a skilled paddler in a placid stream. Often he comes on his quarry asleep in its noonday bed and the animal dies without even seeing the face of its assassin.

To illustrate the result of snow hunting I refer to some of the clubs whose members are mostly of this town. Last year the Inlet and the Granshue Clubs killed 45 deer on the snow. The previous year the latter club had close picking to obtain venison enough for camp. The season was dry, but when the snow came they killed 17 deer in 4 or 5 days. Two years ago in the region where I go, a reliable native told me there was not a man in the neighborhood, or a boy, either, of hunting age, who did not kill a deer on the snow the last day of the season and many of them killed 2 or 3. Could these things have happened still hunting on bare ground or in foliage?

Moreover, when a party go into camp in November they go solely for hunting. They have to keep on the move to keep warm. There is no sitting down on a log for an hour or so to smoke, nor sitting with back against a tree for a snooze.

Deer shot in November can be hung up

with perfect freedom from decay until the season closes, and this is a temptation for a large party to kill their allotted number, whether individually or by party. The natives will take what they need for winter use anyhow; but there is a double temptation in the opportunity to shoot for visitors.

In August the conditions are much different, as anyone who has still hunted in that month can testify. Most people in the woods at that season are there chiefly for rest, recreation, and escape from city heat. If they are at liberty to hunt it adds zest to their recreation and their vacation does them all the more good; but, more often than otherwise, the hunter's sole reward is a glimpse of a white flag seen for an instant and then lost in the leafy labyrinth. It does him good, however, and the deer no harm.

When you wish to get a man's candid opinion in regard to a game law it must not be, in many cases, when he knows it is for the press. You must catch him off his guard. I have made a point of talking with sportsmen in this section and without exception they agree that the November shooting is the greatest menace to the deer supply and should be abolished. They acknowledge that were it cut off many a man would have to go without shooting a deer, but they would have the same chance as the rest. Men who must have a deer driven up under their noses to be shot should not be taken into consideration in measures aiming at the protection of such animals.

It is amusing to consider the pleas made to legislators in regard to the game laws. Here is one sample: A man went to Mr. Babcock, our assemblyman, and urged him to work for a law permitting hounding. He said the deer were becoming so tame they were working out into the open country and farmers were killing them. If hounding were allowed they would be driven back into the woods where sportsmen could get them.

What nonsense! As though farmers were not entitled to shoot game in season. In fact, they practically hold the key to the whole situation and it is only by their courtesy that most of us poor mortals are given the freedom of the woods at all.

I do not wish to be understood as advocating a return to August shooting; but I do say that if it is not allowed, then justice and protection alike demand that the last 15 days be taken from the open season. Furthermore I honestly believe that with the latter change made, the 15 days could again be allowed to advantage in August. More sportsmen would be given a chance, the law would be better respected, and with the non-hounding and jacking provision fairly well enforced, I believe deer would multiply as never before. I do not say this from any selfish motive. I always have at least 5 days of the open season at my disposal and have never seen the time yet when I could not kill 2 deer in that period in broad daylight, if I set out to do so.

THE SCREECH OWL.

JOHN HOWARD, M. D.

What sound is this that's heard amid the night,
Like some lost soul far wandered from its rest?
'Tis but the owl that, leaving its snug nest,
Flies slowly forth to shriek its note of fright.

But when the day awakes all rosy bright,
And scans the earth now in its glory drest
The owl his weird cry then doth quick arrest,
For evil sounds, like deeds, distrust the light.

What means thy plaint that echoes through the vale?
What message bringest thou, ill-omened bird?
Save for thy wail no other sound is heard
To mar the quiet of the evening pale.

So human is that agonizing call,
It seems a soul despairing in its fall.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman.

FINN SHOULD TAKE A REEF IN HIS CAUDAL FIN.

The enclosed clipping, published in the New York Times, Sunday, June 22, contains so many misstatements and adverse reflections on the guides and residents of Jackson's Hole that I desire to give you the benefit of my personal experience in that region.

First ground-hop is the statement that one George William Finn went into the Hole in September, guided several dude hunting parties from the East and charged them $10 a day and grub. Anyone who has ever hunted in the region knows that the fixed price for guides is $5 and grub. Cooks, packers and horse wranglers get less. If Finn went into the Hole for the first time last September he did not take a party out with him as guide. He may have gone along as grub rustler for Josh Adams, but more likely he was at home.

When Finn makes the statement that there "was heaps of hunters all over the hills, and the rifles could be heard bustin' and bangin' away all day," he draws heavily on his imagination. I happened to be in those same hills all through September and only once did our outfit hear a rifle shot from another hunting party; and we covered considerable territory, too. This Finn got into the clutches of some over zealous news shark, and the write-up poses Finn as the oracle of Jackson's Hole and the fast disappearing elk. He was talking big medicine and the reporter raised his ante. It is time both were called. Such men are the bane of all honest sportsmen, and much injustice is done by them. Listen to Finn's yawp:

"The young man described how the carcasses of elk, killed by hunters, could be found in the hills, and bones and antlers scattered everywhere." Certainly bones and antlers are found everywhere, especially the latter. Any tenderfoot dude knows that the antlers are shed every year, and where such immense herds of elk roam the hills it is perfectly natural that shed horns should decorate almost every butte and mountain. This man Finn argues that because they are abundant the elk are dying out! In that climate bones and carcasses last for ages. It is true that a number of elk are found with their tusks removed, antlers and carcasses undisturbed. The reason is not far to seek. Every winter when the snows are deep and feed is scarce, a certain number of elk, bulls and cows and calves, die of starvation; many more than are killed by the whole force of hunting parties invading the region every fall. It is a lamentable fact that tusk hunters also kill bulls for their teeth, but such hunters are few. The tusk hunters go out early in the spring and extract the teeth of the winter-killed animals; and that is why so many untouched carcasses are in evidence, antlers and all.

The inference that Indians are largely engaged in this nefarious slaughter is all bosh. In a 4-month sojourn in the region I did not see one Indian. The country is hoodooed for the redskin since 1894, when trouble was precipitated because the ranchers combined to put a stop to the indiscriminate killing of game by Indian hunting bands. At that time 2 Indians were sent over the Big Divide by the Winchester route, and the noble warrior shuns the Hole.

I saw thousands of elk during the summer of 1901, at close range, photographed them, and watched them on the licks. I do not remember having observed one elk in "all states and stages of maimed conditions," despite the fact that Finn says the country is alive with such fruit of the dude sportsmen's efforts. Elk in Jackson's Hole are in a flourishing condition, for every band last summer had a large percentage of calves. Any reader of RECREATION will readily recall the excellent photographs of immense herds of elk which have been sent in by that indefatigable guide and amateur photographer, S. N. Leek, of Jackson.

The statement that the ranchers are afraid of poachers and that the game wardens are of no earthly use is nonsense. The ranchers are fully alive to the fact that the preservation of the elk in the Hole is of inestimable value to them. They make good money by guiding hunting parties every fall. Last September every available registered guide was in the hills. They know that the extermination of the elk would cut off a great slice of their revenue, and, as a matter of fact, would render it impossible for them to make a ranch go. If the list of members of the L. A. S. is conned, it will be found that a good percentage of the registered guides in the Hole belong to the organization and live up to its principles. An arrest was made in the Hole last summer, by a game warden, of a man who was simply found out in the hills with a gun. The man was run in on suspicion and at last accounts the warden had not been shot.

There is a wholesome respect for the

law in the Hole. All through the summer it is almost impossible to obtain fresh meat there without sending over the pass to Victor, Idaho; yet the hills are alive with big bands of elk. To my mind, when a lot of hardy, hungry ranchers, every one the possessor of a good gun, go without fresh meat the entire summer, and it close to hand, it speaks well for the efficiency of the game wardens and the influence of the conservative sportsmen element among the ranchers. They know enough not to kill the goose that lays the golden eggs. Any reckless rancher who goes elk hunting in the winter in Jackson's Hole has his work cut out for him to escape the clutches of the law. It is an immense territory, and of necessity can not be policed like Central Park, but the statement that wholesale carnage is being carried on there the entire winter is beside the truth.

The ranchers are allowed to kill 2 elk, just the same as any sportsman, and they do their killing late in November so the meat will keep during the entire winter. They go out in parties on these hunts and carry the carcasses home in wagons or sleds, if there is snow. That is probably the foundation for Finn's statement as to indiscriminate killing during the winter. Even then the ranchers do not kill the worn out old bulls, and leave their carcasses to rot, or rather to dry and mummify.

The real menace to the elk lies in the gradually contracting feeding grounds for the winter, due to the taking up of all available ranch land, for it is a good cattle country. This is the difficulty which must be met, and that within a comparatively few years, or it will be too late. Already there are plans under way to add to the timber reserve, which prevents farther encroachment by ranchers, and to extend the Yellowstone National Park reservation still farther South. Many good sportsmen are profoundly interested in this question. In time a solution will be reached and the preservation of the elk made certain; but there is no need of adopting Josh Adams' hired man's suggestion that, as an alternative, good and experienced men should be sent into the Hole to "swing off" a few of the poachers as a salutary warning.

I know your friend Steve Leek, of Jackson, very well, having put in 3 months with him in the hills last summer. It is a great country and should not be maligned.

W. S. W., Pittsfield, Mass.

IS READY TO SHOW PROOFS.

"Adirondack," in August RECREATION, says that if I will furnish the correspondence referred to as taking place between me and the New York State Fish and Game Commission, he will start an investigation that will unearth the "nigger in the woodpile." Unfortunately the correspondence has been mislaid, I not considering it of any more value than the said Fish and Game Commission's "protection." If "Adirondack" wishes to start an investigation I will be with him if he will reveal his identity, write me a personal letter or make an appointment. Lock Box 271, Schuylerville, N. Y., is my address. I will make an affidavit to any and all statements I made, in the article in question, give names of parties referred to, etc. All that has been or is being done in the line of game protection in this section is being done by the L. A. S. or local organizations. The State affair strikes me as being a big bluff, its offices "grafts," and the organization, from the standpoint of game protection, a farce.

I was recently told of a case of a "good fellow," as regards our ruling political organization on caucus and election days, who, during the summer months, goes openly afield with a double barrel shot gun, shortened to conceal under his coat; and who has, at the opening of the season, scores of game birds in cold storage for use in sporting resorts, in some of which it is suspected that persons in political high life have more than a passing interest. I will give "Adirondack" this man's name, my source of information, tell him where he can obtain a description of the man's outfit and the number of birds he had on one occasion, at the opening of the season. In my opinion the woodpile nigger sits boldly on top.

W. M. D., Schuylerville, N. Y.

A SUCCESSFUL EXPEDITION.

Game Commissioner Johnson and his force didn't capture any Indians, but this was as expected by the people of this county. The Utes had due notice of Mr. Johnson's approach and the redskins were safely over the border and on the reservation long before the Commissioner's force reached the Utah line.

However, the expedition was not barren of results. Quite a number of Utah people, generally called Mormons, were caught and made to pay dearly for violating the Colorado game laws. A party of 4 was caught North of Three Springs, and 2 men were caught on Yellow creek. All had deer in their possession, and all were taken before Justice Shankland, of Angora, and fined according to law. The largest haul, however, was made near Cottonwood, close to the Utah line. Under Sheriff Hornbek, Wardens Jay, Fenn and Blades got track of an outfit near Box-

elder, and the poachers got wind of the wardens about the same time. A hot chase ensued, the wardens overtaking the outfit within 4 miles of the Utah line. There were 3 in the party, George Bennett, Jos. Marshall and George Reynolds. They had 29 deer in their possession. They were brought to Meeker and tried before Justice Mow. Each was fined $40 and costs, amounting to $156.

Thirty-one deer carcasses were taken to town; a few were sold here, and the others were shipped to Denver, where they will be sold and the proceeds turned into the game fund. The money thus obtained, together with the fines collected, will more than pay the cost of the expedition.

The arrests were made in Chief Warden Jay's district, so Mr. Jay was the complaining witness in each case.—Meeker, Col., Herald.

OTHER EDITORS FALL IN LINE.

I am glad to see that some of our best newspapers are falling in line with you in regard to game protection. I enclose you an editorial from the North American, of Philadelphia, entitled "After the Game Hogs," which may interest some of your readers:

The Blooming Grove Park game law cases were not ended, it appears, by the action of the Federal Court in sustaining technical objection to the enforcement of the Lacey act. Secretary Kalbfus, of the State Game Commission, reports that he has evidence on which he expects to convict in the State courts 36 members of what is known as the Blooming Grove Park Association, of Pike county, for hunting in this State contrary to the act of Assembly requiring non-residents to pay a license before shooting in this State; 30 of these gentlemen for hunting on Sunday, many of them repeatedly; and 46 for carrying game out of the State. Of the 5 members indicted under the Lacey act, the secretary says, the evidence against them is straight, but they "prefer to quibble and fight over technical flaws rather than meet the facts as they exist."

Under the protection of law, enforced faithfully by Secretary Kalbfus, with the co-operation of the League of American Sportsmen, game is increasing in Pennsylvania, and but for the behavior of such swine as the members of the Blooming Grove Park Association of Game Hogs it would soon be as plentiful as it was 50 years ago.

RECREATION has converted a great many in our neighborhood, who were formerly game or fish hogs, into decent sportsmen.

Rabbits are more plentiful than for years. One morning recently a man counted 41 between Glossboro and Williamstown, a distance of 6 miles. Quails are also abundant, owing, no doubt, to their being fed and looked after during the severe weather last winter by the farmers and sportsmen. Let this grand good work of RECREATION go on, and let every sportsman in the country support it.

A. Beckett, Glassboro, N. J.

IT IS ODELL'S FAULT.

I like RECREATION, but have wondered much since I commenced to read it why there is no agitation in this enlightened State of New York against the marketing of game. I learn from RECREATION that it is forbidden in other States and should imagine that this great and intelligent Empire State would set an example for all the other States. It seems to do nothing of the kind and I am sorry for it, as I am convinced we shall never again have much game until the market hunter is knocked out entirely.

M. I. Mitchell, Ithaca, N. Y.

You have not read RECREATION carefully or you would have seen in almost every issue of it, for several years past, some declaration, either by the editor or by contributors, against the sale of game and against market hunters.

The League of American Sportsmen, aided by a few other good sportsmen in the State, who are not yet members thereof, secured the passage of a bill through our Legislature last winter prohibiting the sale of ruffed grouse, but Governor Odell saw fit to veto the measure. For this he will be held accountable in his coming campaign for re-election. This measure, as originally drafted and introduced, also aimed to prohibit the sale of quails and woodcock, but certain weakkneed members of the Legislature, who were afraid to antagonize the game dealers, had the names of these birds stricken from the bill. The time will come when New York will enact a law prohibiting the sale of all kinds of game at all times, but the friends of the birds must do a large amount of educational work before this can be accomplished.—EDITOR.

THROUGH NORTH PARK.

Last August, in company with Samuel Wright and 2 others, I started for the North Platte, in North park, Colo. On the way we fished in the Little Piney, the Laramie river and the Canadian, with success except in the Canadian. We finally arrived at Ten Mile, a point on the North Platte. We camped there and caught a number of rainbow trout. In the stomach of one I found a dead mouse, and in another a small water snake. I was told that a mouse makes a good bait for rainbow trout.

One morning the curiosity of a 2 year old buck led him within 50 yards of our tent. We all fired at him, but none of us hit him, as far as we know.

The Little Piney is a small stream; overhanging willows and buck bushes make fishing difficult, and the fish are small. The Laramie is a wide stream, deep and swift, and easily fished with hip boots. It contains the most beautifully colored trout in

the West. That part of the North Platte where fishing is best is not easily reached. It winds through high mountains, the water is deep and swift and the stream wide.

We had grouse and fish, and saw wolves, coyotes, bobcats, pine martens and other animals. Our camps were generally enjoyable. At night, high up in the mountains, we slept out in the open, rolled in blankets or with the tent over us. We were gone 2 weeks, and enjoyed the trip hugely.

Frank W. Henry, Greeley, Colo.

A GOOD GAME COUNTRY NOW.

Southeastern Alaska is now well known as a good game country; so was the East at one time. Alaska also will be known before many years as once a good country for game.

Snow begins to fall about the end of October, and then, say about December, when everything is covered with a heavy mantle of snow the market hunter sallies forth, white man or Indian. The deer have been driven down to the beaches of the islands and all that is necessary is to paddle along the beach and shoot down the game at close range; bucks, does and fawns, it is all the same. The poor animals stand huddled together with no place of escape open to them, for if they take to the woods they go only a few yards before they are in a snow drift, and thus fall easy victims to the butchers. Thus it keeps on until the snow leaves in April. If there were protection for does and fawns it would mean a yearly increase of hundreds of head, for there are many hundred does killed even while carrying their young. The Indians are the worst offenders of all, for nothing can be done with them. They are allowed to kill at all times.

Frank Dodson, Douglas, Alaska.

The Alaskan game law, enacted by the last Congress, will stop all this if the good people of that Territory will do their duty. —EDITOR.

IS IDAHO GOING BACKWARD?

Here is a letter written by Mr. F. S. Merrill, chief warden of the Washington Division of the L. A. S., to the Hailey, Idaho, Sportsmen's club. It gives some good advice:

In one of your local newspapers I notice an editorial statement that your club is going to "justify its existence" by working in the next Legislature of your State to establish market hunting. Every man in your State, who does not wish to see the extermination of your game animals, birds and fish will hope this report is not true. As your club is organized for the perpetuation of clean and healthful sport I do not see that it needs any other justification for existence; but if it does, may it not work for the preservation of the game of the State, rather than for the establishment of market hunting, which has been the prime cause in the past of the extermination of game birds, animals and fishes. The market hunter wiped out in a brief time the bison, America's noblest game animal; and if the market hunter were permitted to hold sway, that would also be true of every other game animal and bird. Do not try to justify your existence in that way, gentlemen. One market hunter can kill more game in a month than all the sportsmen of your county would in a year. F. S. Merrill.

A POOR WAY TO GET MEMBERS.

Enclosed I send you clipping from our official paper, The Modern Woodman. This is the largest and best fraternal insurance organization in the world, and I am a member in good standing, but I do not approve of securing memberships in any such manner as set forth in this article. There are more gentlemanly and sportsmanlike ways of accomplishing the same result. Neighbor Ford would better subscribe for and read RECREATION along with his Modern Woodman. He then might see the matter in a different light and be able to help eliminate some of the hogs from the Modern Woodmen, in which order there are supposed to be no other than honest men and "goats."

Neighbor Ford, do not allow another side hunt, for bunnies or any other game.

I trust RECREATION will find its way into Pegram, to educate some of those back-number brethren and make true sportsmen of them.

A. D. Andrews, D. D. S., Seattle, Wash.

The clipping enclosed by Dr. Andrews is as follows:

With the object of reviving interest and securing new members we had a rabbit hunt. The losing side received the spoils of the day, which numbered 230 bunnies. This proved a successful affair as we received 14 applications for membership.

SOME FLORIDA DOVE BUTCHERS.

What do you think of this report clipped from the Leeesburg, Fla., Item?

E. H. Mote and a party of friends went out Wednesday for a dove shoot. They bagged 160.

Unless it was a large party it must have been a drive.

W. N. Pike, Floral Park, N. Y.

I wrote Mote asking if the report was true and, if so, how many men were in the party. He replied as follows:

I beg to say there were only 4 in the

party. No one of them is a good shot. It is not unusual for one man to kill 100 doves. Four good shots could, on the occasion referred to, easily have killed 400 doves. E. A. Mote, Leesburg, Fla.

The great majority of sportsmen do not consider the dove a game bird. The few who think differently limit their killing to 10 or 12. Mote and his friends do not belong to either class; they are just butchers. They killed 40 each, and would have killed 400 or 4,000 had they been able. The slaughter was limited by their lack of skill only; certainly not by the possession of any sense of decency on the part of the killers.—EDITOR.

IN THE JAM.

One day last fall my partner and I started from camp early in the morning. After going about 5 miles we struck a fresh deer track and followed it to the edge of a cedar swamp. Fire had run along the edge of the swamp and there was a regular jam of down timber and dead brush.

The thought struck me that no deer would go far into that jam and I began a close survey of the place. In a moment I saw an old buck looking at me not over 3 rods away. He was behind a log with just his head in sight. As I cocked my 30-30 Rob heard the click and wanted to know what in thunder I was going to shoot. At that instant the buck thought it time to go, and he went as if he had been kicked. My first shot struck a log, and Rob in his surprise nearly fell off the pole he was standing on. He gathered himself together by the time I got another shell into my gun, and just as the buck jumped a log we both fired. I was lucky enough to plant a bullet where I wanted it. The buck ran out of the thicket and fell dead. It took us 5 hours to get him to camp.

I am in favor of prohibiting the sale of game of any kind, and the use of dogs for hunting birds.

A. A. Hathaway, Alba, Mich.

WISHES A LOWER RESERVE.

The chief obstacle to your most praiseworthy attempt to encourage the preservation of game is the difficulty of reaching that inert body of shooters who regard the game question only from a commercial standpoint. During my life I have seen wild animals disappear from so many wide ranges that I fear no moral suasion can prevent their ultimate extermination. Nothing except government interference and the establishment of safe breeding grounds can retard the destruction of all meat and fur producing creatures. The Yellowstone National park was a step in the right direction, but the confines of the preserve are too limited and its altitude is too high. None of our large game, save sheep and goats, would remain on mountain ranges or in mountain basins if permitted to resort as formerly to lower levels. The Missouri river breaks, in Montana, afford one of the finest opportunities for an extensive game reservation in this country. Grass, shelter, timber and watering places are ideal. I hope to see such a territory selected by Congress, where our fauna may be protected and made to multiply.

E. C. Hall, Jordan, Mont.

A MINNESOTA MAN'S VIEWS.

In a former note I advocated an earlier season on chickens and upland migratory birds for the Northern portion of Minnesota. On further investigation I think the chicken season as at present, September 1 to November 1, is perfectly fair. The birds are about full grown by September 1. North Dakota, however, should fall into line with us, both in its season on chickens and its spring shooting law, or lack of law. Snipe should be legal game by August 15, in this part of the State. Most of them leave us by September 1. If snipe, woodcock and plover were made legal game in the Northern part of the State from August 1 or 15 to October 15, it would be about right. There are men who would use such game for a cover in their raids on chickens, but such men will break any law. The only remedy is to fine or imprison them when caught. In this Northern country, where the seasons are manifestly shorter than in the lower part of the State, we should be given a chance at the snipe, plover, etc.

Rev. Lewis P. Franklin, Hallock, Minn.

GAME NOTES.

I send you a clipping from the Anderson, Ind., Democrat. If it is true that there are still buffalo in the Slave lake country, I hope means may be found to prevent their extermination.

The clipping reads as follows:

"QUEBEC.—James M. Bell, just returned from a tour of Central British America, reports large herds of buffalo in the vicinity of Slave lake and Slave river. Thousands of the buffaloes are ruthlessly slaughtered by Indians and white hunters. Mr. Bell will ask the Dominion Government to take steps to prevent extinction of the herds."

We have a few rabbits, quails and squirrels here; but they are so few that I have stopped shooting and do all my hunting with a camera.

O. D. E., Frankton, Ind.

This report is greatly exaggerated, as are most newspaper stories about wild animals. There are probably 100 to 200 wood buffaloes in the Slave lake country, but they are being relentlessly hunted by white men and Indians, and no doubt will soon be exterminated.—EDITOR.

I enclose an article from the Chicago Journal by a writer who seems to think the farmers of the South are inclined to make pets of the little gray squirrels. As a matter of fact, they regard them as more of a nuisance than anything else. I have 3 of the little rascals in the house now, and find great amusement in watching their antics as they scamper around in their cage.

J. G. Hall, Wagoner, I. Ter.

I am glad to know you are one of the men who do not believe in killing every wild creature that can be found. There is a growing sentiment among the better class of sportsmen that squirrels should not be killed at any time. The more closely people cultivate the acquaintance of these innocent little creatures the fewer shots will be fired at them. I have read the clipping you enclosed, and am sure it is a newspaper fake. There are probably no such number of squirrels anywhere as this reporter tells of. Nearly all the stories of birds and wild animals that appear in the daily newspapers are much exaggerated.—EDITOR.

Having read an article in RECREATION by Howard Eaton, of Medora, N. Dak., I feel like asking a few questions. Why did Howard allow the killers of those 2 big rams he speaks about to go unpunished? Does he not know the killing of buffalo, antelope, caribou, mountain sheep, moose, and elk is prohibited in North Dakota at all times? Is he a type of all L. A. S. members in the Western States? In this State the game laws are of no practical value, for there is no one to enforce them. It is true there is plenty of deer hunting, but there are no deer to speak of. There was one deer last year where there were 10 the year before. It is because the market hunter gets out in early fall before the open season and slaughters everything he sees. In most cases the meat spoils because of warm weather. I have seen as many as 30 deer in one heap, all in a state of more or less decay. I wish we could get enough good L. A. S. men in this State to stop such wanton destruction.

A Citizen of Stark Co., N. Dak.

John A. Steel's letter in June RECREATION, page 460, voices my sentiments, only too mildly. There is no language strong enough to properly condemn those who shoot indiscriminately, at long range or short, and cripple, wound or kill innocent, helpless animals and birds and call it sport. Surely they would not consider it sport if they would stop to think of the pain they inflict. They forget that every animal and bird has a nervous system and that gunshot wounds are among the most painful known to science. They forget also that animals and birds thus wounded must often endure great torment for want of water, in addition to the pain of the wounds, for no nurse can bring water, dress the wounds, nor set the broken bones. A true hunter shoots to kill, and kills only for useful meat. The health-giving exercise and exhilarating recreation are simply legitimate incidents. No true hunter, nor no true man, can kill for sport; consequently, in the words of Mr. Steel, "I detest the name sportsmen."

J. W. Carson, Frostproof, Fla.

Probably the supervisors of Westchester county are as wise as their fellows in other parts of the State. No fair minded person expects first chop statesmanship from a supervisor; but I think if they would spend more time learning the limitations of their authority and less in creating deficits in town treasuries, it would be to their credit. The latest vagary of our Honorable Board is appointing "town game wardens." They have as much right to appoint an ambassador to China. If their appointees make an arrest or a seizure they will get themselves and the county in trouble. The fish, forest and game law, 1901, article IX, section 176, says: "The commission may in its discretion appoint a person recommended by a majority of the supervisors of any county or by any game club incorporated for the protection of fish or game, as special game protector." In all the law there is not another word at all bearing on the subject, so the supervisors' right to make wardens must be God-given, like their obtuseness.

G. A. Mack, Pleasantville, N. Y.

October 14, 1900, was cold and drizzly; as unfavorable a day for hunting as could be imagined; but my partner, Bill Woodcock, and I were hungry for venison and hoped to find some at Twin Sister lake. When we neared the lake Bill told me to follow the road to the shore while he would cut across the beech flats and perhaps drive a deer to me. I had barely reached the bank when I heard the crack of my companion's 44. I ran up the road a little way to head off the deer in case Bill had missed. In a few minutes I heard

twigs snapping in the alders, and I soon saw, not a deer, but a good sized bear waddling along the trail. He was about 8 rods from me when I fired at his shoulder. He fell, and a second bullet between the eyes finished him. Bill had wounded him in the hip with the shot I heard him fire. It was the first bear hung up at Buck Tail camp.

Burrell Ainsworth, Port Leyden, N. Y.

June 28 R. C. Thomas and I left Norfolk, Va., on a canoe in tow of a tug. We were bound for Lake Drummond. The tug dropped us at Deep creek, and we made the rest of the trip by aid of a white ash breeze. The lake is a weird looking body of water, with cypress trees growing here and there for 100 yards from shore. We made for the Western bank. There we found the vines and underbrush so thick it was impossible to enter the woods without cutting our way.

Later, we found an old tramroad and a slash and pitched our tent there. The next morning we hunted for bear but found none. We were told that it is easy to get one in October; they are then feeding in the gum trees and are numerous. We tried fishing, but without success. Getting tired of living on canned stuff we pulled out for home much sooner than we had intended.

J. H. Fisher, Jr., Norfolk, Va.

I protest against hunting deer with shot guns and buckshot. We have a law here against hunting deer with dogs, and we should also prohibit the use of buckshot. It is unsportsmanlike and cowardly. The 2 methods usually go together.

I met many so-called hunters last year looking for deer with shot guns. They would tell of many deer they shot but did not get. They will shoot at a deer 30 rods away, and perhaps put one or 2 shots in it. Then it will get away and they could not get it if they should follow it a week. Many such deer get into swamps and die. A friend told me of a party living in this city who in one season shot and wounded 7 deer, but did not get any of them. Finally he got a rifle and killed a deer just as the season closed. If we could get such people to join the L. A. S. they would see the errors of their ways without laws to make them decent.

L. A. S., No. 1268. Traverse City, Mich.

I am in favor of laws prohibiting spring shooting and the sale of wild game at all times. Our laws are good enough otherwise if enforced, but that is the rub.

I believe more chickens were shot in this country before September 1 than after that date, by pot hunters, farmers, swine, and men who go out early claiming to train their dogs. I know of one farmer in this vicinity who boasted of killing 78 chickens before the season opened. One of our citizens claims to have speared 6 grain sacks of fish in one night and unblushingly called it sport. Near the deserted marsh J. C. French tells about a herd of swine camped last spring. When they broke camp they left lying on the ground a great pile of ducks, not even taking the pains to give them away. They claimed they only wanted the sport.

Captain, Montevideo Gun Club, Montevideo, Minn.

The other day I received a mailing card from the publisher of an alleged sportsmen's journal, asking for my subscription. As they probably will not publish my reply I give it here, verbatim:

You are rightly informed. I am an enthusiastic sportsman and am proud to own the title. In the field, with rifle, rod and gun, at my desk, and in the columns of the journals devoted to outdoor athletics I have done what a man may to uphold the standard of clean sportsmanship. I, therefore, make bold to say that if your magazine ranch has not a hot branding iron for game hogs in its outfit, it is not up to date, and I have no use for it. I am glad to know that I am one of about 330,000 sportsmen in these United States who are of the same opinion, and the number is growing.

E. L. Tiffany, Wilson, N. Y.

Four years ago I was the only reader of RECREATION here, and the people thought all hunters from the city were game hogs. I loaned the magazine where it would do the most good, and the ranchers now give the game a chance. Thirteen wild geese fed every day within 50 yards of me last summer, and were so tame we could work within 30 yards of them. Their nests were not far away. Game hogs from Wenatchee shot geese here lately, and I am going to do what I can to stop it by posting notices that were sent me by State Game Warden Merrill. May 4th I met a man from Seattle who had been hunting and had a female grouse. I felt like punching him where his brain should have been. He is a lawyer, named Wright, and camped near here all summer.

G. E. Young, Wenatchee, Wash.

I note in RECREATION that Mr. J. D. Morley, of Lake Pleasant, N. Y., recommends as a protective measure that still hunting deer be prohibited and that the open season begin September 1. I trust

no one will be misguided by nor give any serious thought to Mr. Morley's arguments, for with possibly one exception they are ridiculous in the extreme. In my opinion when a man becomes too lazy to do honest still hunting he should keep out of the woods. I also advise the same course for those who shoot or recommend the shooting of deer in warm weather.

J. G. Dillin, Radnor, Pa.

Here is an item from the Cincinnati Commercial Tribune:

Circleville, O.

"William Patton, a young man of this city, was probably fatally injured this afternoon by being shot in the groin. In alighting from a buggy in which he was riding, his gun was discharged, the load passing through his groin and shattering his right hip. This was the second hunting party that was broken up to-day in this vicinity in a similar manner.

"The first accident occurred this morning, when Delano Hunley was instantly killed by a gun, discharged accidentally in the hands of his companion."

This looks to me like another case of "served 'em right." I can not imagine what birds they could be hunting lawfully on February 1. Thos. Peter, Cincinnati, O.

Sunday, August 31, a homing pigeon, with rings on each leg bearing No. 1580IJ., came to our place and is being taken care of until we can hear from owner.

We have had one of the best squirrel seasons ever known in this part of the State. I had 3 mornings' sport and had my wife and sister-in-law out on the last trip. I killed the limit, which is 10, by 8.30 a. m. and came out of the timber with squirrels barking in all directions.

I killed my 10 squirrels with 11 shots.

I have been a constant reader of your magazine and can not do without it.

O. H. Kirby, Lamartine, Ohio.

Mr. George M. Houghton, traffic manager of the Bangor and Aroostook Railroad, writes me under date of August 1, 1902, as follows:

"I am sorry to announce that one of our trains last week killed an entire family, a moose family, consisting of father, mother and son. Every effort was made to stop our train, but as it was heavy and on a curve it could not be done and all 3 were killed. We are sorry, of course, to have anything of this kind happen, but it was one of the cases that was purely accidental."

What do you think about this? March 15, 1901, I bagged 121 quails in one day's hunt, and killed 8 or 10 more that I failed to find. Had it not been such an awfully windy day no doubt I would have got twice as many. Quails were plentiful and there is no telling how many one of your hogs would have bagged.

Geo. D. Davis, Brownwood, Tex.

ANSWER.

What do I think? I think you are either a liar or a game hog. Most likely the former.—EDITOR.

I send you newspaper clippings telling of the arrest of 3 members of the Audubon Gun club, of this city, charged with cruelty to animals in having shot live pigeons at the trap. Two of the prisoners were discharged. The third was fined $10, which he paid. The fine would have been larger had it not been understood that the defendant would appeal, and thus secure an authoritative ruling on the pigeon law; but he concluded he was well out of it for $10.

Alfred C. Fox, Chicago, Ill.

I did not see half the game in Wyoming last season that I saw in former years. Its winter range has been entirely destroyed by sheep. If the desert North of Big Sandy river could be made a game preserve, elk, deer and antelope could at least hold their own in that part of the State. As it is now, if one wants antelope he can go down there, hide at a water hole and kill all he cares to.

J. B. B., Portland, Conn.

On page 43 of July RECREATION some unknown person using the name of Jasper Smith writes you of my killing 68 coots and old squaws. The story is false from beginning to end. I was out with a party who killed that number, but not one of the ducks spoiled. I have done and shall continue to do all I can to protect the game.

A. Van Wicken, Port Washington, N. Y.

Small game has been abundant here the past 2 or 3 years. Quails are exceedingly plentiful. However, we get but little shooting. The law requires sportsmen to obtain written permission from owners of lands on which they hunt, and most of our farmers refuse permission to all but their friends. E. P. Pettit, Marietta, O.

My experience teaches me that cougars kill more deer than do all other wild animals. They will never be exterminated in this region until each rancher keeps a pack of trained cougar dogs. Lynx, also, do much harm. I have known them to kill full grown deer; but I think this is unusual.

G. S. Weeks, Chesaw, Wash.

ALMANAC FOR SALT WATER FISHERMEN.

The following will be found accurate and valuable for the vicinity of New York City:

Kingfish—Barb, Sea-Mink, Whiting. June to September. Haunts: The surf and deep channels of strong tide streams. Baits: Blood worms, shedder crabs and beach crustaceans. Time and tide: Flood, early morning.

Plaice—Fluke, Turbot, Flounder. May 15 to November 30. Haunts: The surf, mouth of tidal streams. Baits: Shedder crabs, killi-fish, sand laut. Time and tide: Ebb, daytime exclusively.

Spanish mackerel—Haunts: The open sea, July to September. Baits: Menhaden, trolling—metal and cedar squids.

Striped Bass—Rock Fish, Green Head. April to November. Haunts: The surf, bays, estuaries and tidal streams. Baits: Blood worms, shedder crabs, Calico crabs, small eels, menhaden. Time and tide. Night, half flood to flood, to half ebb.

The Drums, Red and Black. June to November. Haunts: The surf and mouths of large bays. Bait: Skinner crab. Time and tide: Day, flood.

Blackfish—Tautog, April to November. Haunts: Surf, vicinity of piling and old wrecks in bays. Baits: Sand worm, blood worm, shedder crabs, clams. Time and tide: Daytime, flood.

Lafayette—Spot, Goody, Cape May Goody. August to October. Haunts: Channels of tidal streams. Baits: Shedder crabs, sand worms, clams. Time and Tide: Day and night flood.

Croker—July to October. Haunts: Deep channels of bays. Baits: Shedder crabs, mussels. Time and tide: Day, flood.

Snapper—Young of Blue Fish. August to November. Haunts: Rivers and all tide ways. Baits: Spearing and menhaden; trolling pearl squid. Time and tide: Day, all tides.

Sheepshead—June to October Haunts: Surf and bays, vicinity of old wrecks. Baits: Clams, mussels, shedder crabs. Time and tide: Day, flood only.

New England Whiting—Winter Weak-fish, Frost-fish. November to May. Haunts: The surf. Baits: Sand laut, spearing. Time and tide: Night, flood.

Hake—Ling. October to June. Haunts: Open sea surf, large bays. Baits: Clams, mussels, fish. Time and tide: Day and night, flood.

Weak-fish—Squeteague, Squit. June to October. Haunts: Surf, all tideways. Baits: Shedder crabs, surf mullet, menhaden, ledge mussels, sand laut, shrimp. Time and tide: Day and night, flood preferred.

Blue Fish—Horse Mackerel. June to November 1st. Haunts: Surf, open sea and large bays. Baits: Menhaden, surf mullet and trolling squid. Time and tide: Daytime; not affected by tides.

NOVA SCOTIA SHOULD PROTECT HER SALMON.

Mr. J. G. Sievert, of Halifax, N. S., writes to a local paper a pathetic story of the destruction of salmon in streams of that Province by netters. He says that during July he spent a week fishing for salmon on the Port Medway river and in all that time he saw but one salmon. That he landed, and it had a net scar around its neck, showing it had been in a gill net and had probably escaped by breaking the cord. Mr. Sievert says Port Medway bay and the river itself are full of set nets from end to end and from shore to shore. Dip nets are also used daily at every dam and at every fall on the river, making it almost impossible for the salmon to reach the spawning grounds at the head of the river. It is stated that fish buyers patrol the shores of the bay and the river and buy the salmon as fast as they are pulled out of the nets. When men still living were young it was useless to set nets, for salmon could not be sold. They were so abundant that any man could go to almost any river in Nova Scotia and take out all the fish he wanted within an hour. Now a man fishes a week with a fly and gets one rise. Even the netters scarcely average $1 a day each from the sale of their fish. If the present method of following and killing every salmon that comes into the river be continued a few years, the children of men now living in that Province will not know what a salmon looks like. Mr. Sievert advocates a law limiting the use of nets in any provincial waters to 3 days a week. That would allow the salmon to ascend the river during the remaining 4 days undisturbed and it is safe to say that if such a law were enacted and rigidly enforced, salmon would be abundant in that country for hundreds of years. The editor of the paper referred to speaks thus of Mr. Sievert's letter:

In another column will be found a letter from Mr. J. G. Sievert, on the threatened extermination of the salmon in the rivers of this Province. Mr. Sievert's letter should incite to prompt action not only the sportsmen but the business men of Nova Scotia. That he does not overstate the case in any way will be readily admitted by all who have any knowledge of the subject. Our streams are being rapidly cleared, not only of salmon, but of trout, and the Province is being robbed of one of its chief and most profitable attractions. It is not easy to deal with this matter. There are too many selfish interests involved to make it at all probable that the ruthless destruction now in progress can be stayed without united and strong effort. It is most earnestly to be hoped that such effort will be made without delay. Every man who has influence of any sort should bring it to bear at once if he has the best interests of the Province at heart. It is idle to appeal to the fishermen themselves. Stringent laws must be enacted and adequate provision made for their enforcement if our salmon, so valuable for food, for sport and as an attraction to moneyed visitors, are to be saved from speedy extinction. We commend Mr. Sievert's letter to the attention of the Government and of all concerned.

HAVE DELAWARE BASS CHANGED?

It may not be known to you that the Delaware bass, since their introduction to those waters in 1873, have undergone an anatomical change, proving the doctrine of evolution and making for them a record probably not held by any others of their *genus*. They have grown more symmetrical

and neater. Much of their soggy beefiness has been trained down to the thoroughbred racehorse type, the heaviness of the bones has decreased, the jaws have lost much of their prominence, particularly the under one, and the bony frame of each fin has grown smaller, while the muscles and sinews have been increased in each fin. The notch in the tail has become almost extinct, the head has become more pointed, the forehead's slope has grown more slanting, and a red spot has appeared in each eye, on the edge of the pupil. The iris of the eye is also more brilliant. I have never observed the foregoing characteristics in any bass outside of the Delaware.

I claim that the red spot in the eyes of the Delaware bass renders him just as distinct a type of his species as though his eyes were blue or green. His color, too, has perceptibly changed to brighter hues, finer markings, etc.

I once dressed a 4-pound black bass fresh from the Delaware for a physician stopping at my house. He ordered the eyes removed, for he wanted his cook to bake the bass for him and his city cronies when he got home. I threw the eyes in a large stove from which the red hot ashes had just been raked. I thought they would immediately burn up, but, to my surprise, one of them exploded with a little puff, while the other shriveled to about the size of a buckshot. On taking it out and wiping it I found it had become very hard, had the weight of a pebble of its size, and was a beautiful pearl. Just how this change was brought about I am unable to say. I do not claim, however, that this is a distinctive feature of our Delaware bass.

M. L. Michael, North Watergap, Pa.

GOOD ADVICE TO CLUB MEMBERS.

Here is a copy of a circular issued by the Fish and Game Committee of the Tolland Fish & Game Association, whose preserve is near the Colbrook river, in Connecticut. I earnestly commend the subject matter of this circular to all members of fishing and hunting clubs.

About the 10th of May the water in the Tolland streams will be sufficiently warm and low to insure good fishing. The large brook was heavily stocked last year and promises the largest fish and the best sport the members have ever had at the club. The small lake offers excellent fly fishing for rainbow trout, as a 1½ pound fish was caught there this year. He was put back, so is still there waiting for a fly. The committee urgently requests the members to put back as many fish caught as possible, only reserving a few of the choicest for eating and to take home.

As far as sport is concerned a fish has served its highest purpose when caught, and if returned to the water can serve that purpose again and again, to an increasing extent, as he grows larger. Besides, we share the sport of catching with others and have not decreased our own pleasure to the slightest extent. This ought to be particularly so with rainbow trout as it is the largest fish that furnish the finest sport, and if all the rainbow trout are put back the entire membership will have plenty of good fly fishing throughout the season. Last season a large number of brook trout were thoughtlessly wasted. Many times half the fish caught were not eaten, though cooked; and in a number of instances the fish were left in the creels and spoiled. Good as the fishing will be, this season, it would be far better had the wasted fish been put back. The committee earnestly requests the members to give this matter serious thought and to give their heartiest co-operation in keeping the club streams and lakes well stocked with large fish. Only in this way can the sport spirit in our club be brought to the highest standard.

A MICHIGAN RAZORBACK.

The following clipping was recently sent me by a subscriber:

Niles, Mich.—Considerable excitement has been stirred up among the fishermen of Cass county by a recent catch of large mouth black bass made in LaGrange pond, 5 miles East of Dowagiac, by James Heddon. Mr. Heddon captured 73 bass in a few hours. One of the string weighed 6 pounds, while many of them weighed 3 and 4 pounds. The total weight of the catch was 114 pounds.

This wholesale slaughtering of the bass has started an agitation which may result in presenting a petition to the Legislature at the next session asking for the passage of a law that will prohibit the use of more than one hook on a bait when angling for bass.—Detroit Free Press.

I wrote Mr. Heddon, asking if the report was correct, and he replied:

I did catch 73 of the black beauties within a few hours. Thinking perhaps you would like to use a photograph I am sending you one to-day.

Chas. Heddon, Dowagiac, Mich.

No, I do not care to use the photograph. If you had followed the usual method of fish hogs and had stood beside the string, I should then have been glad to print the picture, in order that decent men might recognize you when they saw you and shun you. The fish are not to be blamed for being photographed, and being dead and hung up they are simply like any other 73 dead bass. It is safe to assume that these fish would average 2 pounds each or more; so it appears you destroyed about 150 pounds of black bass, whereas no gentleman would care to kill more than 25 pounds in a day at the most. I trust the

time may soon come when the Legislature of your State will curb the vicious appetites of such men as you by enacting a law limiting the number of fish any man or beast may take in a day.—EDITOR.

A FISH HOG AND A LIAR.

I enclose a clipping from our "Review" which may interest you. I admire your stand in regard to game protection and preservation, and your knifing of game hogs. RECREATION is all right and improves with each issue. I especially enjoy the letters of experience of your various sportsmen correspondents.

J. E. Bates, Spokane, Wash.

Here is the clipping:

John Pelzel, a fisherman of Medical lake, who insisted on catching bass out of season, was fined $10 and costs by Justice Kennan. Pelzel, with whom fishing is a business, fought the case, and had Lawyer L. J. Birdseye defend him. It developed in the testimony that a farmer named Grubb owned the land around Grubb lake, a body of water covering 30 acres and having neither inlet nor outlet. Grubb stocked it with bass and they multiplied rapidly. Pelzel bought 40 acres from Grubb, which contained 3 acres of the lake, and speared fish regularly, in season and out, until he nearly exhausted the preserve. He was warned not to fish during the closed season by State Senator Stanley Hallett, of Medical lake. Pelzel, however, had a letter written to the State Fish Commissioner setting forth that he was the owner of all the land around the lake, and asking whether he had the right to fish. The Commissioner replied by quoting a letter from the Attorney-General to the effect that under such circumstances he would have a right to fish. Pelzel accordingly kept on fishing until arrested on complaint of Game Warden Uhlig. His lawyer announced that he would appeal.

Thus it seems that Pelzel is not only a fish hog but a liar as well; that whereas he owns only 3 acres of lake, he made a false claim to the fish commissioner that he owned it all, in order to obtain a semblance of authority to slaughter fish in close season. It is to be hoped the higher court to which his case has been carried will soak him and that his lawyer will charge him at least $500 for handling the case.

Mr. Uhlig, who made the arrest, is a member of the L. A. S.—EDITOR.

FISHING IN ALASKA.

Even in the country, where trout abound, I have seen evidence of the use of dynamite. This was the work of white men, for Indians will not use the villainous stuff. Imagine using dynamite where one can catch 100 pounds of trout in 2 or 3 hours with hook and bait!

A friend and I went this summer to a creek not far from here to salt down some trout for winter use. We each took a butter firkin to put our fish in, each firkin holding 100 pounds or thereabout. In 3 hours we both had enough fish to fill our firkins. Mind you, we put these up for our own use for food, for neither of us is on easy street and we have to look after getting our own food supplies through hard work.

On our return journey we had to wait an hour for the tide at the head of Douglas island. To while away the time we set our halibut line, baited with 2 small trout. As we were making the line fast to a spring pole on shore something struck it. We paid out more line and it immediately tightened. Then we struck hard and went out with the boat to take in the fish. It was too big to get into our little skiffs, so we towed our catch ashore and killed it with a club. The halibut weighed 250 pounds; but that is nothing uncommon here, for I saw one last winter that weighed 420 pounds.

In a country so prolific in game and fish, is there any excuse for slaughtering fish by dynamite or for shooting does and fawns?

Frank Dodson, Douglas, Alaska.

BEAMAN THINKS HE IS A SPORTSMAN.

D. C. Beaman, of Denver, who is now at Avalon, Santa Catalina Island, Cal., has sent George Tritch a photograph of his record catch a few days ago. He says of it:

"I beat the record catch for the season yesterday, taking 6 yellowtails, 3 bonita, 15 barracuda, 3 rock bass and 1 shark—28 in all; weight, 265 pounds. Young, of St. Louis, came next with 25, but he ran out of bait and I gave him half a dozen smelts. Then I ran out of bait and quit in a school of yellowtails which were making the water boil for acres all about my boat. But for giving him the half dozen I could have increased my catch 5 or 6 more.

"Yellowtails run about 3 feet long and the largest I caught weighed 29 pounds.

"It takes about 20 minutes to land a yellowtail or a bonita, and if anyone thinks landing 28 of these fish isn't a good day's work, he may try it."—California Paper.

Yet Beaman poses as a sportsman and a game and fish protector! A prominent Denver man told me, a year ago, he thought the city had more game and fish hogs to the square inch than any other in the country. If any evidence were needed as to the truth of this, here's a block of it.—EDITOR.

NIBBLES.

Will someone tell me, through RECREATION, of an artificial bait that will take the speckled or calico bass found in the lakes of Ohio and Pennsylvania. These fish are truly game. They are beautifully mottled with dark green, almost black, irregular spots and weigh ⅛ to ½ pound. I have had good success with minnows about an inch long, but they are hard to obtain. Have also tried a small rubber minnow, at which they would strike savagely, but I could only succeed in hooking about one in a dozen. I think a fly of some kind would be successful. I have angled a great deal

for blue gills, and I use the common black field cricket for bait. They can be found on pasture lands under sticks, stones or anything that affords cover.

F. L. Caris, Meadville, Pa.

It was reported to me that Cleve Richardson and Herman Bennett, of Gorham, N. H., caught 260 trout in Peabody river. I wrote these men, asking if the statement were true, and received the following letter:

The report you received was correct. We caught the trout out of a stream known as Nineteen Mile brook. I have been out twice since then, once fishing Moose river about half a mile, catching 27 trout, and the other time fishing Moose brook one mile and catching 55.

C. L. Richardson, Gorham, N. H.

It is not necessary to use much space in talking to you. You are a disgrace to your community and should be run out of it.—EDITOR.

I was one of a party visiting Star island, St. Clair flats, for a few days' recreation. June 1 we procured guides and went to the fishing grounds. Fishing not being to our taste, we started on an exploring expedition through the passages between the numerous islands. We went still West of West passage, against the advice of the owner of the launch which we had rented. We saw 2 natives in duck boats spear at least 25 black bass off their spawning beds in less than 30 minutes. Our boatman said that in case a game warden showed up, those fellows would take to the tall weeds ashore and escape. He said, also, that hotel people bought the fish, paying 8 cents a pound for speared fish and 10 for others.

E. L. Barton, Gibsonburg, O.

Can someone advise me where I can procure an artificial bait that can be used successfully in taking blue and channel catfish? If there be such a bait, what is it?

D. Smythe, Newark, Mo.

ANSWER.

I regret I do not know of any artificial bait that can be used successfully in taking catfish. Blue and channel catfish are bottom, or deep water, feeders almost entirely, and, as a rule, the best bait for them is live minnows or worms. They are frequently taken with fresh beef or salt pork.—EDITOR.

In the New York Times of July 3 Mr. John F. Doyle, of New York, gives some instances of catches other than fishes while angling with the fly, suggested by an account in the preceding issue of the hooking of an owl. Mr. Doyle mentions the capture of a bullhead on a fly, and is not aware of similar occurrences. I can add a small item. Two years ago I took a catfish of moderate size on a red ibis in the Potomac river at Washington. Possibly inquiry would result in accounts of similar experiences.

M. C. Marsh, Washington, D. C.

I wish you would suggest in RECREATION the stocking of the lower portions of our large trout streams with European grayling and rainbow trout. The rainbows would thrive, and the characters of the parts of streams referred to would suit grayling exactly. Why should we have only a short period of good fly fishing in this country? We should have it during all the more quiet months.

Theodore Gordon, West Haverstraw, N. Y.

There are 2 men near Concord, N. H., who are better posted on the fish and game laws than before. They recently went into court at Stoddard and parted with $155 and 31 short brook trout. For each short trout found in their possession they were fined $5. The fishermen gave their names as M. Cheney and William Cram.

They will hereafter fish for big trout exclusively.

Clinton, Ia.—Arb McDonald dropped a stick of dynamite from a boat into the Maquoketa river for the purpose of killing fish. The dynamite exploded directly under the boat and McDonald was blown to atoms. John Ralston and Peter McCabe, who were in the boat with McDonald, had narrow escapes. They will have to stand trial for violating the game laws.

Thus another lawbreaker meets a well deserved fate.—EDITOR.

With a Shakespeare rod and reel I have improved from 60 or 75 feet to over 100 feet in bait casting. Can cast that distance every time without any trouble whatever. The Kentucky and the other high grade reels are good but Shakespease Standard and Professional are equally good.

H. B. Landgraf, Washington, D. C.

Game Warden George Story came here recently and captured 2 fish hogs, 100 feet of seine and 150 pounds of fish. Mr. Story is doing excellent work, and the good results are already seen.

Wm. Tubb, Emerson, Ia.

Will you please ask your readers through RECREATION what food they find most suitable for catfish, black bass, and pike when confined in separate ponds?

H. L. DeWitt, Riverside, Pa.

GUNS AND AMMUNITION.

Anybody can keep shooting all day, but it takes a gentleman to quit when he gets enough.

FACTS ABOUT SMOKELESS POWDERS.

Montgomery, Ala.

Editor RECREATION:

M. E. B,, in August RECREATION, asks why the so-called shot gun smokeless powder can not be used in a rifle, and why smokeless powder can not be used in a muzzle loader. If M. E. B. will place a small quantity of black powder on a piece of board and ignite it with a match, he will observe that it burns with a flash and a puff. The same experiment with smokeless powder will give an entirely different result. The smokeless powder will burn fiercely, with intense heat, for a much greater time than the black powder. Therefore we say smokeless powder is slow burning. When powder is ignited in a confined space, the gas evolved can not escape, and it causes pressure. All powders burn more rapidly the greater the pressure, but smokeless powder increases its rate of burning much faster than does black powder. Therefore under great pressure smokeless powder burns faster and acts more violently than black powder. In a shot gun the powder is confined until the pressure has risen to the point where it is able to force the charge of shot and wads out of the shell, unfolding the crimp of the shell at the same time. After this the charge of shot passes through the smooth barrel with comparatively little resistance. In a rifle, the powder is confined until the bullet can be forced through the barrel, and the pressure necessary to force the metal of the bullet into the grooves of the rifle is naturally much greater than that required to move the shot in a shot gun. This is especially true when long jacketed bullets are used in a small bore rifle. Shot gun powder is so made by the manufacturer that it burns at the proper rate when confined in a shot gun. If subjected to the greater confinement of a rifle, the pressure, being greater before the bullet moves, will cause the powder to burn too fast, and the pressure will increase. This increased pressure will increase the rate of burning, and the pressure will again run up; to such a degree that damage to the rifle and its operator is almost certain to occur.

Rifle smokeless powder is made to burn at the proper rate in a rifle, and can not develop its power in the lesser degree of confinement of the shot gun. The same explanation holds for shot gun smokeless powder in a muzzle loader, where the absence of the crimped shell causes the confinement to be too slight even for shot gun smokeless powder. Therefore the quick burning black powder will give better results.

For every gun each different kind of bullet will require a powder load different either in kind or quantity of powder to produce the best possible result in each case. This is why so many riflemen experiment with their ammunition, and why their conclusions vary so widely. There is one peculiarity of smokeless powder that is responsible for many a disaster to experimenters, and that is the tremendous increase of pressure developed for a comparatively small increase in the powder charge. It can not be too strongly urged that the greatest charge of smokeless powder recommended by the makers for a given gun must never be exceeded. By means of extra strong testing barrels these makers have determined the greatest safe charge, and they know what they are talking about. Do not put your guess up against their knowledge, or something may drop.

The question is sometimes asked, why smokeless powder is better than black. Apart from its greater cleanliness and the absence of smoke, it will actually do more work, for it gives off more gas at a much greater temperature. The value of the extra heat will be appreciated if you place a tightly corked empty and dry bottle in the fire. In a few minutes the expansion of the air in the bottle will blow the cork out with a pop. Just so the gas from the powder will expand more the hotter it is.

In a high power rifle black powder can not give pressure so high as smokeless, for the space occupied by the gases increases as the bullet moves forward, and the powder can not burn fast enough to keep the pressure up. Under great pressure smokeless powder burns rapidly; hence it can keep up the pressure better than black powder can.

In some guns the pressure from black powder runs higher than the pressure from smokeless, yet the velocity of the shot is less with the black powder. This is the case with shot guns. The reason is that the work done in pushing the shot through the barrel and giving it a velocity is measured by the force exerted, multiplied by the distance over which the force acts. Thus the work done in lifting one pound 2 feet is exactly the same as that done in lifting 2 pounds one foot. The higher pressure of the black powder, acting through only a part of the length of the barrel, can really do less work and pro-

duce less velocity than the lower pressure of the smokeless, which, being better sustained, works over a longer path.

This again explains why a gun made for black powder is not always safe to use with the lower pressure of smokeless powder. The gun is made thick at the breech for the high pressure of black powder, and the walls of the barrel near the muzzle are thin because the pressure has fallen off by the time the shot reaches those parts; whereas the well sustained pressure of smokeless powder, while perfectly safe at the breech, may burst the outer parts of the barrel. Modern guns are made safe for both kinds of powder.

The statement is sometimes made that black powder should be used in long barrels, and nitro powder in short ones. This is an error. The shorter the barrel, the quicker must the charge of powder be. A special grade of smokeless powder must be used for short barrels, such as revolvers. My early efforts to use ordinary smokeless powder in revolvers were flat failures.

I have been asked why shot scattered, and why a choke bore scatters it less than a cylinder. There are 2 causes for the scattering of shot. One is that the air in front of the charge as it issues from the muzzle is compressed by the onward rush of the charge, and entering among the shot pellets this compressed air forces them apart. The other cause is the pressure of the powder gases acting on the rear wad for a short time after the charge has left the muzzle. At this time the charge of shot has not the lateral support of the walls of the barrel, hence this pressure forces the rearmost shot pellets in among the foremost, thus wedging them apart. In a choke bore, the diameter of the barrel decreases toward the muzzle. Therefore the diameter of the shot charge must decrease as the charge moves forward to the muzzle; but as the volume of the charge remains the same, it is evident that the length of the charge must increase. In other words, the shot in front must move faster than those in the rear to gain the required distance. Therefore, when the charge emerges from the muzzle, the rearmost shot pellets must gain on the foremost under the action of the blast of powder gas from the muzzle, before the wedging action above described can take place. Hence this wedging is reduced, and the shot do not spread so much as in a cylinder gun.

I have been told that soft shot should be used with black powder, and chilled, or hardened, shot with smokeless. This is wrong. Chilled shot is always to be preferred, especially with black powder, whose high pressure, suddenly applied, is apt to crush and deform soft shot. The more gradual application of pressure with smokeless powder is less apt to deform the shot, particularly when elastic felt wads are used between powder and shot. It also gives the easier recoil which makes smokeless powder so pleasant to shoot.

R. R. Raymond,
1st Lieut., Corps of Engineers, U. S. A.

THE ALL AROUND SAVAGE.

San Francisco, Cal.

Editor RECREATION:

During the past 16 years I have shot many different makes and calibers of rifles, among them Remingtons, Ballards, Colts, Marlins (alas!), Winchesters, etc. I am not narrow minded enough to say that the Savage is absolutely the best shooting and working arm made or better than the Winchester. Each stands as the highest exponent of its respective class; the Winchester as the special gun, the Savage as the all around gun.

I pick the Winchester for comparison, because I believe it the only gun which really competes with the Savage; at any rate, that is the case here. If you want to hunt large game and that only, buy a 25-35, 30-30, .303, or 30-40 of any standard make, except Marlin, and you will find it reliable and good. For all around shooting, reliability, beauty, style and symmetry give me the Savage. It is equally good for rabbits, birds or bears. If that is the kind of gun you desire, buy a Savage and you will make no mistake.

If used while fresh, I find the Savage shells stand reloading with smokeless about 3 times; but I usually reload with black powder, which I find makes a cartridge about equal to the 32-40 in power, and allows longer use of shells. The best small load is the small steel or metal covered bullet with 10 grains smokeless. This is a wicked little cartridge and about equals the 32-20.

The wire wound or paper patched lead bullet with 13 grain smokeless is a fine cartridge for jack rabbits and targets at 200 yards or more. For birds I use a regular 32 caliber lead pistol bullet and 3 grains of smokeless. The Savage .303 is practically 32 caliber, and the solid head bullet with black powder makes a fine goose load. The .303 is not so powerful as the 30-40, but it is powerful enough and will kill as far as one can see to shoot. According to my experience the penetration of the .303 soft nose Savage is about 10 inches in pine.

In using the Savage for all around shooting, I find an ivory head front and sporting rear sight are best. The Lyman is good when shooting one kind of load. I at first used a Lyman combination rear sight, but found it troublesome. Generally

speaking, up to about 60 yards my gun seems to shoot all the different cartridges with about the same head. However, with an open rear sight one soon learns to make allowances. On account of the peculiar shape of the Savage stock, all sights will not fit. When ordering always specify "for the Savage" and you will save trouble.

Shooting alongside a Krag-Jorgensen regular army cartridge, I find that at 600 yards the Savage, with regular cartridge, shoots just as well, but with a slightly greater elevation. Beyond that distance the Krag shoots with the greater ease and accuracy. Shooting Savage mushroom bullets into a bank of earth at 20 yards, the bullets seem to pulverize, as I can never find them; while shooting under same conditions with the Krag regular metal cased, I usually find the lead filling in a lump and separated from the covering.

If the gun is cleaned right after using no trouble will be experienced in keeping the bore bright.

About the only fault I find with the Savage is that the stock, where it fits the receiver, is too light, and lacks needed strength. After using other rifles, it takes one some time to become accustomed to the hammerless feature of the Savage.

A point of note to a prospective buyer is the uniform courtesy of the manufacturers. About a month after I bought my rifle I took it to the hills, where I had the misfortune to break the automatic cutoff and ejector. I took the broken parts out and used the gun as a single shot. Then I sent the broken parts to the factory with a request that they be replaced. In a short time I received new parts, postage prepaid, and a letter regretting the occurrence, and explaining it to have been caused by a flaw.

In hunting I have found the Savage the lightest and best balanced repeater I have ever used. The Savage carbine, 20 or 22 inch, is an ideal gun for woods hunting and horseback. It will shoot as well as the regular gun, but I do not think it so good a long range weapon, on account of the sights being so close together.

In regard to the soft point bullet flying to pieces on contact with a skull: Recently, while hunting, a farmer requested me to kill a horse which had been hopelessly injured. Standing about 30 yards away, I aimed at the horse's forehead, a little below the center line and ranging upward. At the report the horse fell, killed instantly.

I have nothing against the Marlin rifle except its faulty action; if that was perfected it would rank with standard makes. It is a pity so good a gun fell into such stubborn hands. Marlin is at least consistent. He refuses to advertise in RECREATION because some of its readers have asked him to, and refuses to remedy a known defect in his guns because the public asks him to. In both cases he loses.

Jas. Gilmaker.

A FORMIDABLE WEAPON.

The experience of Mr. E. E. Van Dyke in the use of a 22 caliber rifle for hunting, as given in February RECREATION, leads me to relate a little of my own experience along the same line. For many years I had been an advocate of the larger caliber hunting rifles for big, dangerous game, supposing in my simplicity that they would be more effective in stopping power, owing to their increased weight of powder and lead. However, after an exhaustive series of experiments with nearly all makes and calibers of cartridges, both smokeless and black powder, and various lengths of barrels, I found that the most effective for all purposes, especially for the hunting of moose or grizzly bears, is the 22 short, rim fire. This seems to possess decided advantage over every other size in "get there" qualities, and in stopping large game. I found, also, that the barrel could be materially shortened, one of about 10 inches giving the best results. With a 10-inch barrel using the above ammunition, the average penetration is 36 inches in seasoned oak planks. Indeed, some of the bullets in addition passed through an iron plate, back of the last plank, ½ inch in thickness. A rifle of this description is the most formidable hunting weapon that can be made, and is abundantly able to stop any animal that roams the American or African forests. Armed with one you need not be afraid to meet, as the late Seth Green used to say, "anything that wears hair."

I took such a one with me on my last trip to New Brunswick, for moose. One rainy day in camp on the shore of Wishluck lake, I saw a moose come down to the opposite shore to drink. The lake at that point is about ¼ of a mile across. Ed Raynor, my guide, said, "Try him." I did so, firing just as the moose was raising his head from the water. He fell in his tracks as if a thunderbolt had hit him. Taking the boat we went across and found that the little bullet had not only smashed the skull into atoms, but had penetrated some 18 inches along the pith of the backbone.

Again, returning to my cabin one evening in the Cœur-d'Alene mountains of Idaho, I came suddenly upon 4 immense silvertips in a rocky gorge where I had no chance to retreat and they all charged me at once. I was under the disadvantage of having to reload after every shot, for I had my 22 pistol, single shot. Still I managed to lay them all out before they reached me, as only one shot was required for each. Sev-

eral of the guides declared they had never seen so effective a weapon, and each of them ordered a similar one at once.

To sum up its advantages: The ammunition is light to carry, and cheap. It can be found in almost any gun store. Be sure to call for the *22* short, rim fire. The rifle with 6 or 10-inch barrel takes but little room. It can be carried in a side pocket as easily as a toothbrush. A repeater is unnecessary, as a second shot is rarely needed. These advantages are so decided and manifest that I understand anyone who should be seen out after big game with the old style Savage or Winchester, with their .303 and 30-30 calibers, would be laughed at by the guides. Several of the European nations are considering the desirability of discarding their present weapons and adopting an arm using the *22* short rim fire cartridge.

D. L. Bodge, Middle Falls, N. Y.

MORE PRAISE FOR THE TELESCOPE.

I bought a telescope sight several years ago because a defect of my right eye had made rifle shooting almost impossible to me. I selected a Malcolm No. 2 Imperial and found I could see as well to shoot with its aid as ever before. The field of this instrument is not particularly large, but the power is excellent.

For a quick running shot a good sight mounted on top of the telescope is, I believe, more practical and satisfactory than the telescope itself, whether the field be large or small. With this arrangement a narrower field can be used, with consequent higher power, which I consider one of the essentials to accurate shooting.

My first experience with the 'scope in actual hunting was during a trip in Northern Wyoming about 2 years ago. I scarcely claim to be even an amateur sportsman, and when I started on that trip I had never seen a live wild deer. Our camping and traveling was of the roughest kind, and my telescope gun was as easily taken care of as any other, notwitnstanding that many hunters claim these guns are not practical on a hard trip such as ours.

Though fortune, as all hunters know, is a fickle dame, she certainly smiled propitiously on me on that trip. My first game was 2 buck mule deer, 6 and 8 prongs respectively, at distances of 175 and 225 yards in the breaks of the Little Powder river. My only honor in the feat was in not getting buck fever, for they were so big I could not have missed them.

My best practical test of the 'scope was one day, when, having jumped a deer in a rough section, it stopped at a distance of 125 yards in a thicket of scrub oak. So dense was the cover that with the naked eye I was unable to see any sign of him. By the aid of the telescope I detected a patch of hair in the brush, at which I fired. I found my deer, a fine 4 pronged brush buck, dead, shot through the shoulder. At another time, in a dim light, while on an elevation scanning the valley below, my companion detected, at a distance of about 300 yards, the faint outlines of the hind part of a deer in a clump of quaking asp. My first shot broke the deer's hind leg; a second finished him. One other excellent shot I made was shooting off the head of a grouse at a distance of 15 steps, after sundown, in a dim light. I tell of this merely to show what can be done with a high power 'scope in a dim light.

I am but an indifferent shot, yet on that trip I killed everything I shot at, and I attribute my successes mainly to my telescope sight.

C. P. Swarm, Oakland, Ia.

QUESTIONS THE SKILL OF THE FATHERS.

In March RECREATION Old Hunter, Glen Ellen, Cal., made a statement which I can not refrain from taking exception to, despite the fact that I am scarcely 1-3 as old as he. I refer to that part of his article in which he says that in old days any fair shot could put a second bullet on top of the first at 100 yards.

There are only 3 ways in which that could have been done: by using a telescope sight; by being able with the naked eye to sight on the bullet hole at 100 yards; by sighting on the center of a small bullseye.

The first of these need not be considered; there were no 'scopes in those days.

As to the second, I do not believe there is, or ever was, a man who could sight on a bullet hole at 100 yards, as but few can see it at all at that distance even under the most favorable circumstances.

When it comes to the last way it could be done only by the most exact method of loading. The old style of loading, according to Old Hunter's description, was anything else, the powder being measured by holding the bullet in the palm of the hand and pouring from the flask a quantity sufficient to cover the ball. By this method there could not but be some variation in the quantity of powder, granting that the bullets were all the same size, which they were not, as this is not true of bullets cast in the best modern moulds until after swaging. Add to this the fact that few men indeed can use anything like the same pressure each time in ramming home a ball, and it can readily be seen that the above feat must have been extremely difficult and rarely accomplished.

I do not mean to insinuate that the rifleman with the muzzle loader was not an expert, but it seems the fashion nowadays to magnify the achievements of our forefathers and to belittle those of our own day.

There are always plenty of unthinking ones who swallow it all and sigh longingly for the good old days.

No doubt there was formerly a larger percentage of good shots than now, due partly to the fact that nearly everyone was more or less dependent on his rifle for food and protection, and partly because in those days ammunition was scarce and expensive. Nevertheless, there are riflemen to-day, and plenty of them, too, who are the equals of any of the old timers, while there are some who can perform feats with the rifle which none of the old school could have hoped to equal.

W. H. Deaver, Dayton, O.

WHAT SOME DEALERS SAY OF MARLINS.

While hunting in Northern Minnesota last fall, I met many people who had used Marlin rifles and discarded them.

I did not take a gun with me, intending to buy one at my destination. In the first store I visited I found a goodly number of Winchesters and other standard guns, but not a single Marlin. I asked the dealer why he did not keep the latter. He said he had used one himself and since then wanted nothing to do with them. He added that he would rather meet a catamount with a crowbar than with a Marlin rifle.

I entered another gun store and not seeing any Marlins there either, I asked for them. The proprietor said he formerly kept them in stock, but had had so much complaint about them that he had quit selling them.

I met a man later in the day who had an almost new Marlin which he offered to sell to me for a price that would have been exceedingly reasonable for any other rifle. I declined to buy, but asked why he wanted to sell. He told me he had seen a large buck that morning at which he had fired and missed. The buck, not knowing where the shot had come from, ran within 100 feet of him and stopped. He worked the lever to throw in another cartridge, but the empty shell clogged in the gun. He broke both blades of his pocket knife in trying to get it out, while the buck was still standing there. He left the deer and went home, and had to take the gun apart to get the shell out. I met him a few days later, and he told me he had exchanged the gun for a plug of tobacco, and had bought a Savage. I heard many similar stories. I saw a man exchange a Marlin 40-65 for a Flobert 22.

W. A. Mason, Radcliffe, Ia.

NITRO GUNS IN THE FAR NORTH.

While in the far North I heard of several 30-30's, both Marlin and Winchester, bursting in cold weather. I did not see the guns nor the men who were using them, so do not know the causes. I think there must have been some obstruction in the barrel, if nothing more than some hard, frozen grease; though I do not know whether that would cause so much mischief or not. Some also claimed that smokeless rifles would miss fire in cold weather, and blamed the nitro powder. I never heard of a case where the powder failed to do its work if the primer exploded. As far as I could find out, all trouble was caused by too much oil on the guns, that froze and hindered the action of the firing pin. I saw as much of that trouble with black powder guns as with smokeless. I used a 30-40, and all through the cold season kept it perfectly free from grease, oil and moisture. It never failed to work satisfactorily in all kinds of weather.

E. L. Stevenson, Alhambra, Cal.

DETERIORATION OF NITRO POWDERS.

I have experimented with nearly all the nitro powders. One that I know nothing of is Ballistite. All smokeless compounds I have used have invariably lost strength with age. Many gunners, for reasons of economy, prefer to buy loaded shells in case lots, even though they may not have the opportunity of firing 100 shots a year. To such the keeping quality of a powder is of prime importance and semi-smokeless will not disappoint them.

A friend, in November, 1899, used a certain dense nitro in chicken shooting, and was so delighted with the phenomenal kills made that he put aside the remaining cartridges of the lot and kept them until the next fall. By that time the powder had deteriorated to such an extent that the killing power of the cartridges was practically *nil*, though it was a highly glazed powder guaranteed against the influence of everything supposed to be detrimental to powders in general.

While my friend was away on that hunt I was shooting quails with semi-smokeless loads procured early in 1899, side by side with others sent from the factory 18 months later. I could not distinguish the slightest difference in their range penetration.

If this powder was smokeless it would be perfect. In consideration of its many good qualities, I, for one, shall continue its use both at the trap and in the field, in spite of its trifling smoke.

John Nordstrom, Gothenburg, Neb.

SMALL SHOT.

I get your magazine from our local newsdealer every month and read it with pleasure. I should like to be informed through

RECREATION the difference between the .303, a .305 and a 30-30.

A. D. L., San Diego, Cal.

ANSWER.

The term 30-30 means that the bore of the rifle is 30-100 of an inch in diameter and that the cartridge carries 30 grains of smokeless powder. The term .303 means that the bore of the rifle is .303-1000 of an inch in diameter, which is practically a distinction without a difference.

I do not recall having heard of anyone's making a .305 rifle, but it would simply mean that the bore was 2-1000 of an inch larger than that of the .303.—EDITOR.

Many sportsmen seem prejudiced against every gun but their own. It is natural for a man to brag about his gun if he has never seen or handled another model. I have used several different makes, and now have a 12 gauge, 8½ pounds hammerless Parker, P. H. grade. I began to hunt in '87, but never had much luck killing wild turkeys until '97 when I bought my Parker. Since then I have killed 11 turkeys with 14 shots. I used 4 drams of Dupont or Laflin & Rand black powder and 1 ounce of No. 3 or 4 shot. For even pattern, good penetration, dead kills, and no cripples, the Parker is second to none.

W. H. Snyder, Winfield, Pa.

I have a 30-30 Marlin that has been cut down to a 22 inch barrel. It shoots well up to 125 yards, but will not hold up beyond that, and is no good for deer. I shot a buck through both shoulders, yet he traveled over a mile and I had to shoot him again. Several other deer I have had to follow and shoot the second time, when I know the old 40-65 Winchester would have stopped them in their tracks. Will someone tell me if the fault is in the short barrel, or are all 30-30's the same? If they are, the 40-65 is good enough for me.

Jno. C. Davis, Etna, Wash.

Why can not nitro powder be used in any rifle? Is it because black powder guns are not strong enough to stand the pressure, or because of their slower twist? If I use just enough smokeless in my 32-40 Stevens to give the same velocity as the standard charge of black powder, why should it be more dangerous to use? And why should it not give the same trajectory and penetration? What is meant by a false muzzle on a rifle?

M. Cuchman, Belvidere, Ill.

After using guns of all gauges from 8 to 20, I pin my faith to the full choked 16 bore. A man must be a fair shot to get game with that gun as it shoots extremely close, but when a bird drops it is almost invariably a clean kill. I never use shot larger than 6's. In rifles I prefer the 30-30 Winchester carbine, as it is good for either a rabbit or a bear.

F. Lehman, Sergt. Co. I, 21st Infantry,
Fort Douglas, Utah.

Cripple Creek, Col.

Peters Cartridge Co.,
Cincinnati, Ohio:

Dear Sirs:—I have used Peters' ammunition for years and there is none better, but your stand against RECREATION is uncalled for and unfair. I for one shall select another make of cartridges than yours hereafter.

Yours truly, S. T. Stevens,
Member Gold Belt Rifle Club.

I notice your correspondents chiefly praise Laflin & Rand and Dupont among smokeless powders. I have used both and they are certainly good; but I prefer Blue Ribbon smokeless. It is true the manufacturers do not advertise it in RECREATION. I think they make a mistake in not doing so; but, all the same, I consider it the best powder made.

Old Sportsman, Noyan, Que.

In answer to L. O. Ingalls: My favorite fox load for a 12 gauge is 3 drams Dupont nitro powder with 1 ounce No. 4 chilled shot.

In answer to Nimrod: My experience has been that a 30 inch barrel will shoot 1-3 stronger than a 28 inch, for the reason that the longer powder is confined the more force it has.

L. B. H., North Rome, Pa.

The story in January RECREATION entitled "A Day in the Laurentian Mountains" is good. I do not think, however, it was sportsmanlike to carry a combination shot gun and rifle, with one barrel shooting an explosive bullet and the other buckshot, on a deer range.

A. Kennedy, Missoula, Mont.

My brother owns a 32-20 Winchester rifle. One day I borrowed it and went squirrel hunting. I shot at a gray and missed the first shot. I pumped up another cartridge but it jammed and I worked about 2 hours before I got it out. Why did this rifle jam?

G. Condor, Harwinton, Conn.

RECREATION is a good one and well worth $1 a dozen. What we want is a law prohibiting the use of all fire arms save of Marlin make. Then game will swarm. Keep your hogs squealing, wring their noses to stop them from rooting.

R. Gilbert, Salem, Ore.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

FOUR NEW APES.

W. T. HORNADAY.

Last summer the primates' house in the Zoological Park received a valuable consignment of apes, baboons and monkeys. They came from Hamburg, in the "Graf Waldersee," from Carl Hagenbeck. There were 3 orang-utans, one chimpanzee, 2 drill baboons, 3 lemurs, and one rare African monkey. A young gorilla that actually reached Hamburg for the Zoological Society, and was to have come in this shipment, died 2 days before the vessel sailed; and the Zoological Park people were greatly disappointed. This creature was worth $1,500.

The star attractions of the late arrivals are a full grown female orang-utan and a lively nursing baby. The mother is big, brown, solemn faced, and as plain looking as the laws of Nature ever permit in an orang. She stands 42 inches in height, has a spread of arms 6 feet 2 inches, and her foot is 11½ inches long. Her teeth have not been brushed since childhood, and the acid fruits of Borneo have stained them to the color of an ancient meerschaum. Her skin is about the color of old mahogany, and her hair is the reddest on record. This specimen and her interesting infant were caught in Borneo 9 months ago, when the latter was a helpless little creature about 3 months old. Their capture was effected by cutting down the low tree in which they had taken refuge, and built a nest for the night. Usually orangs that are captured when full grown are so savage and intractable they resist captivity fiercely, and die in a short time. Sikey, however, has more sense than falls to the portion of the average wild orang. Instead of fighting the inevitable, she wisely elected to survive, and train up her infant, Dohong, in the way he should go. Although not yet tame and obedient, or ready to do stunts, she realizes that her keepers are her friends, and that even curators are worthy of limited toleration. She takes her cups of tea gratefully and her rice and bananas as an Englishman takes his pleasures, sadly. When in doubt, she reaches out a long, hairy arm, and gathers little Dohong to her breast. It is droll to see her reach out magnificent distances and either help the little fellow to climb faster, or haul him up by one arm to the hurricane deck of her sleeping box. He is an obedient chap, and has all the points of a thoroughbred. Beyond doubt, this mother and child will prove of great interest to the thousands of children now visiting the Park.

The Professor is a male orang-utan about 6 years old, and nearly as large as Sikey. He is full of suspicion, and at present elects to be friendly with no one. Occasionally his manner becomes truculent, and he threatens to bite his keeper. Eventually, however, he will calm down, and act properly.

The chimpanzee is a black haired, pink faced infant about 18 inches high, and her name is Polly. Coming across the Atlantic 3 of the apes caught severe colds, and arrived coughing. Already, however, the mild and even temperature of the primates' house has had a marked effect on the animals, their coughing has ceased altogether, and they show general improvement. Being closely confined, the trip was tiresome to the large orang-utans, and they greatly enjoy the freedom of the big cages in which they now live.

A few days later 5 sea lions arrived from Santa Barbara, California, and were set free in the sea lion pool, near the reptile house. The most interesting specimen of the lot is a squalling baby about 20 inches long, which was born on the dock at Santa Barbara. The little barbarian, or, to be more exact, Santa Barbarian, has fared well, and is fat and lusty. Moreover, it has plenty of stamina, and at times rules its mother despotically.

The Park is now well stocked with wild babies, of at least 25 different kinds.

Sikey has since died of tuberculosis.

THE SEA OTTER OF WASHINGTON.

CHARLES M'INTYRE.

The sea otter of the Northern Pacific is fast becoming extinct. Twenty years ago many hunters, scattered along 100 miles of coast, lived entirely on the income derived from the sale of otter skins. The shore country was then practically uninhabited save by Indians; to-day it contains many cities and towns. In all Western Washington there is no good timber or agricultural land unclaimed, save in the Indian reservations which are being gradually opened for settlement.

The destruction of the otter on that coast began about 50 years ago, when Ed Huggins, an old Hudson's bay fur dealer, came into the region to trade with the Indians, giving them flintlock muskets in exchange for furs. He also bought for cash from the few white hunters in the country.

In those days otters were comparatively unwary, and were shot with muzzle loading rifles at 50 to 100 yards. A hunter would kill 5 to 20 in a season, leaving the coast

in October and going to Portland or Olympia to spend his pile, and returning in the spring.

About 1873 Harry Weatherald and Steve Grover appeared on the scene. Using improved rifles, they got more game than their competitors. A little later Sharps 40-90 and 45-100 rifles were introduced on the coast, and the fur yield increased largely. As more hunters came, the otters grew wilder until by '78 it was necessary to shoot at 250 to 500 yards. In that year Weatherald and Grover sold 47 skins as their season's kill.

The price of skins rose until in '76 a prime pelt brought $75. In '77 they dropped to $30; rising gradually again until the Hoquiam mills started, in '87, with G. H. Emerson as manager. Emerson bought the catch of the beach for a few years, and the hunters rejoiced; but as he lost money on furs and made it up scaling the logs for the mill, it ured trouble between the hunters and the lumbermen.

The beach on the Washington coast is low and wide. The white hunters built derricks about 40 feet high and from them shot most of their otters. The Indians killed their game 1 to 5 miles off shore, prowling about in canoes until they found an otter asleep on the surface of the water.

Animals killed from the beach were washed ashore by the tide. As hunters increased in number, quarrels frequently arose when 2 or more persons claimed to have killed the same otter. It was finally agreed that each hunter should mark his bullets with a different letter or symbol, and in that way trouble was avoided.

The otters decreased rapidly before such persistent warfare, and when the schooner "Kate and Annie" cruised the coast 2 seasons, hunting them, the few remaining animals sought other waters. For 2 years scarcely an otter was seen. In 1901 a few returned and 9 were killed, the pelts bringing $150 to $300.

Even in their time of greatest abundance sea otters never ranged North of Point Granville nor South of Gray's harbor, though their food, clams and crabs, was plentiful all along the coast. Between the points named are peculiar currents running, within a few miles of each other, in opposite directions. That may account for the otters' choice of habitat, as facilitating their travels up and down the coast.

CAN A DOG THINK?

I have been much amused in watching the behavior of a little black spaniel belonging on the ranch where I am a sojourner. He has some of the instincts of a hunter, and goes into ecstasies when he sees me take down my rifle.

The cabin in which I camp is within the edge of timber, in which are numbers of gray squirrels. Nig chased one into a pine one morning. My daughters, from the kitchen window, heard him barking and called to me:

"Nig has something treed."

Picking up the rifle I sauntered out and presently discovered a squirrel perched on high, regarding me with curiosity and Nig with disgust. A shot brought him down and made the spaniel my warm friend.

He watched the skinning with great gravity, and when the dressing was completed claimed the offal for his own; though I do not think he ate anything but the skin. In an hour or 2 he announced by furious barking, that he had another squirrel treed. I did not go to him, so he left his game, ran into the room where I sat reading, punched my knee with his nose, went to the door, and there stopped to see what I intended to do. I had just finished cleaning the rifle and was loth to foul it again for one squirrel; but at last I yielded to the dog's importunity and went with him. He went directly to a particular tree, and contrary to my expectations, there sat the squirrel. It fell at the dog's feet, was borne to the house, dressed and set aside with the other. As the spaniel sat watching me I talked pleasantly to him about the squirrel. He looked on soberly, noticing my talk only by an occasional wag of his tail; but in the afternoon as he lay at my feet while I read, I suddenly asked him if he would not better look out for a squirrel. He sprang up, ran to the woods and hunted half an hour.

Leaving the home at the ranch he attached himself to our humble household, and was for some time our steadfast companion and guard; taking his meals with us, rather than at his proper home.

On one occasion my daughter put his dinner on a plate and set it back of the house. Nig lay by the front door asleep. Presently I called to him: "Nig, your dinner's ready in the back yard." Up he sprang and around the house he ran, straight to the dish.

It is the general belief that the man goes to heaven, but that his dog ends his career at death. If that be so, then, the wrong fellow often gets to the right place.

W. H. Nelson, Boulder, Colo.

Your story is interesting, but why kill 2 harmless and beautiful animals to please the dog? Wild animals and birds are now divided by naturalists and good sportsmen into 3 classes: Pets, game and vermin. The first should not be killed. The others may be at the proper times and in reasonable numbers. The squirrels are in the first class.—EDITOR.

AS TO GREY SQUIRRELS.

I note your article on grey squirrels in August RECREATION in answer to F. E. Williams, of Spring Valley, Minn. A person is guided largely by his own experience and both of you are right. The instincts of grey squirrels are the same, but their habits vary with the conditions by which they are surrounded. I have had some experience with wild grey squirrels, having bought several tons of corn ears for them within the past year. At first I allowed them free access to the crib, which is close to large timber, but I found them so extravagant and wasteful I had to check them. On any day I could see them carrying away whole ears of corn. There are bushels of cobs in the woods and I have frequently found ears of corn in the brush near.

I stopped this practice to a great extent by placing sheet tin over the holes on the side of the crib so a squirrel can only enter by bending his body. As they can not bend the corn ears, I frequently find ears partly out of the hole, but jammed against the tin. The squirrels are smart enough to take out half ears now.

The reasons for this habit seem to be, with my squirrels, caution and convenience, not the instinct of supplying future needs. By carrying the whole ear to a place of safety they can eat the grain at their leisure. If they wish to feed their young, it is easier to carry the ear than the loose grain to the nest. These squirrels do not seem to hide a single grain of corn. They eat what they want and throw the rest away. They feel certain there will be corn in the crib. They will eat cracked nuts at once, but they will invariably bury whole nuts, no matter how hungry they may be. I have tested them by throwing out one nut at a time. They seem never to tire of digging, but they do not bury 2 nuts in the same place.

A grey squirrel will eat only 6 to 10 cracked hickory nuts on a cold morning, but their appetite for corn seems unlimited. They eat only the rich, oily germ, throwing away 90 per cent of the grain. For this reason, a quart of shelled corn will not last a squirrel 2 days. There are several quarts of germless shelled corn lying on the ground under my crib. Chickens know that the best of the kernel is gone and refuse to eat the remainder.

Fredk. A. Canfield, Dover, N. J.

HAS THE ORIOLE CHANGED ITS SONG?

Have you ever known or heard of any bird that has changed some of the notes in its song? The golden robin, or Baltimore oriole, as it is often called, has, to my ears, and to the ears of all my brothers and sisters and some friends, decidedly changed its song during the past 20 years or more. The character of its song, I mean, the tone, *timbre,* or quality, remains the same, undoubtedly distinguishing this bird among others; but the scale, or melody, has undergone a decided change. I have not, for many years, heard the song I was familiar with and could imitate perfectly, and that I remember as well as I do my A, B, C or the bugle call. This may sound odd, but I am sure of what I say. If you know of anything that can account for this change in the song of a bird, I am curious to learn what it is. This was again brought to my notice by the advent of the orioles here last spring, and they have added still another change of note at the termination of the melody; one I never heard before. I suppose everyone has remarked that the song sparrow has several different ways of ending its song, and sometimes, of beginning it; but the oriole has changed his song entirely from that which I knew 30 years ago. Can it be due to a mixing of breed?

S. W. F., Portsmouth, N. H.

ANSWER.

Such a change in the song of the oriole, in 30 years time, is quite possible, but unusual. There is great individuality in songs of the same species, often greater, comparatively, within a circumscribed area than when individuals from a larger extent of country are compared. It is an example of evolution, but might be either progressive or retrogressive in character.—EDITOR.

CANNIBAL RABBITS.

Last winter, during the time of our big snow, a cat caught a rabbit close to my barn. I heard the rabbit squalling and drove the cat away before she had killed her victim, but bunny died that night. In the evening it snowed again, covering all old tracks. The new snow, the next morning, gave a clear account of what had occurred during the night. I found the partially eaten carcass of the rabbit lying 20 feet from where it had died. Its flesh hung in long, fine shreds or strings—just such work as I imagine a rabbit would do with its long, sharp teeth; and not a track of anything except rabbits was to be found. Neither cat, owl nor any other beast or bird had set foot in the snow near that place.

I tracked 4 rabbits from there and jumped them all within 50 yards. I am as certain that carcass was eaten by rabbits as if I had seen them eating it. At the time this occurred the ground had been covered with snow 2 weeks or more. I was compelled to believe what, before, I

would have scouted as being the veriest nonsense.

Does any other reader of RECREATION know of rabbits eating flesh?

A. C. Thatcher, Urbana, O.

THE GROWING AND SHEDDING OF ELK HORNS.

Elk here shed their horns the latter part of March or fore part of April. I have known bulls to shed in February, but such cases are rare. When one horn drops off, the bull will adopt violent measures to rid himself of the other. I have several times found a freshly shed horn sticking up with the points driven in the ground by force, or tangled in a bunch of brush. In most cases the horns of a pair will be found near one another.

The new horns must begin to grow almost immediately, as by May 15 they have a good stock. By August 15 they are full grown, and in some cases stripped of the velvet. Elk do not, as generally supposed, have a point on their horns for each year of their age. Their first horns are spikes about 12 inches long; their second horns have 4 points; their third horns, 5 points or 6 small ones; their fourth horns and all later have 6 points. Sometimes freak horns are seen with as many as 9 points or even more.

There are now 3,000 elk in this valley. They seem to be in good shape and doing well. S. N. Leek, Jackson, Wyo.

DO BIRDS WHISTLE OR SING?

It has often been cause for astonishment that an animal so remote as a bird in the line of development from man should be the only creature capable in the least degree of imitating the human voice. A talking horse has from time to time been advertised; but for practical purposes man's only mimic is the bird. An American naturalist has recently written to prove that birds are not singers, but whistlers; that is to say, that the notes are produced through the tube known as the glottis, not by the help of vocal cords; but the whole distinction is beside the point. Anyone who has seen a bird singing will have seen both the vibrations of his throat and the variations in the extent to which he opens and closes his beak or mandibles; and given these accompaniments, together with the production of an articulate language, whistling and singing become identical, in spite of technical terms suggesting a distinction. People are accustomed to the idea that only a few species of birds, such as the parrot and the jackdaw, can be taught, but in wild life almost all birds are mimics to some extent, and probably more of them than people realize could be taught to imitate human sounds. The starling has astonishing skill in taking off other birds; and even the raucous jay can produce a song, or a whistle, if the word is preferred, which would do justice to a thrush.—London Globe.

NATURAL HISTORY NOTES.

I do not think porcupines are responsible for the disappearance of deer antlers. In Southern Michigan there are but few porcupines and many deer, yet I never found a shed antler. I have found a number of skulls with antlers attached. If porcupines ate the shed horns, they would have eaten the others. When in Northern Michigan I found an antler apparently buried or rather trampled into the mud by a deer, as there were tracks all around the place. I asked an old trapper about it. He said the buck buried it so it would become soft, and would return and eat it. That seemed the belief of all Indians and trappers that I inquired of, but I do not know why they believed it. Should like to hear from some one who knows.

C. Ribler, Litchfield, Mich.

In August last, while camping with other members of a club at Florence Heights, 15 miles from Trenton, N. J., I caught an eel on a hook and line. In cleaning the eel I found it contained spawn. Such an occurrence has never been known in this part of the country before. If any other reader of RECREATION has ever had a similar experience I should like to hear from him and to learn particulars.

A. T. Stewart, Trenton, N. J.

As to what becomes of the horns: Three years ago, while in the Adirondacks, I saw 2 mice working on a horn in the woods. Two years ago, in the same country, I saw a red squirrel running with a queer looking object in his mouth. I fired, causing him to drop what proved to be a piece of deer horn. Any and all rodents will and do eat shed horns wherever found.

G. G. Piatt, M.D., Wayland, N. Y.

I have seen grouse standing on the edge of a sap trough picking drops of maple sap from the end of the spile. I have seen them picking dew from leaves when there were pools of clear water all around. I studied their habits closely when they were abundant and before so-called sportsmen made them wild, but have never seen them drink.

C. Riblet, Litchfield, Mich.

I subscribe for your valuable magazine. I used to buy it from my news dealer, but the demand became so great that unless I was on hand when they came in I could not get a copy, as they were sold at once. RECREATION has been the means of reforming many heretofore game hogs, myself included. As soon as read, I pass my copies around among my friends, who like to read it, and I am sure it will do them no harm.

W. C. Green, Searights, Pa.

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Applications for membership and orders for badges should be addressed to Arthur F. Rice, Secretary, 23 W. 24th St., New York.

LOCAL WARDENS IN NEW YORK.

County.	Name of Warden.	Address.
New York,	Conrad L. Meyer,	46 W. Broadway.
Livingston	M. De La Vergne,	Lakeville.
"	K. S. Chamberlain,	Mt. Morris.
Albany,	C. D. Johnson,	Newtonville.
"	Henry T. Newman,	"
"	Kenneth E. Bender,	Albany.
Broome,	John Sullivan,	Sanitaria Springs
"	R. R. Mathewson,	Binghamton.
Cayuga,	H. M. Haskell,	Weedsport.
Chemung,	Fred. Uhle.	Hendy Creek.
"	M. A. Baker,	Elmira.
Cortland,	James Edwards,	Cortland,
Erie,	E. P. Dorr,	103 D. S. Morgan Building, Buffalo.
"	Marvin H. Butler,	Morilla.
Essex,	W. H. Broughton,	Moriah.
Franklin,	Jas. Eccles,	St. Regis Falls.
Montgomery,	Charles W Scharf,	Canajoharie.
Oneida,	J. M. Scoville,	Clinton.
Orange,	Wilson Crans.	Middletown.
"	J. Hampton Kidd,	Newburgh.
"	Thomas Harris,	Port Jervis.
Richmond.	Lewis Morris.	Port Richmond.
St. Lawrence.	Dr. B. W. Severance,	Gouverneur.
"	A. N. Clark,	Sevey.
Schenectady.	J. W. Furnside,	Schenectady.
Suffolk,	F. J. Fellows,	Central Islip, L. I.
"	P. F. Tabor,	Orient, L. I.
Tioga,	Geo. Wood,	Owego.
Washington,	C. L. Allen,	Sandy Hill.
"	A. S. Temple,	Whitehall.
"	J. E. Barber,	Dresden.
Westchester,	George Poth,	Pleasantville.
"	Chas. Seacor,	57 Pelham Road, New Rochelle.
"	E. G. Horton,	Pleasantville.
Dutchess, Columbia,	A. B. Miller,	Jackson's Corners.
Onondaga,	James Lush,	Memphis.
Yates,	B. L. Wren,	Penn Yan.
"	Symour Poineer,	Branch Port.
Dutchess,	Chas. H. DeLong,	Pawling.
"	Jacob Tompkins,	Billings.
Queens,	Gerard Van Nostrand,	Flushing, L. I.
"	W. S. Mygrant,	46 Elton Street, Brooklyn.
"	P. A. Geepel,	473 Grand Ave., Astoria, L. I.
"	L. B. Drowne,	119 Somers Street. Brooklyn.
Ulster,	M. A. DeVall,	The Corners.
"	Wm. S. Mead,	Woodstock.
Jefferson,	C. J. Smith,	Watertown.
Herkimer,	D. F. Sperry,	Old Forge.
Oswego,	J. E. Manning,	154 West Utica St.
Putnam,	H. L. Brady,	Mahopac Falls.
Schuyler,	G. C. Fordham,	Watkins.
Allegany,	G. A. Thomas,	Belvidere.
Schoharie,	O. E. Eigen,	Sharon Springs.
Warren,	Geo. McEchron,	Glen Falls.
Orleans,	J. H. Fearby,	E. Shelby.
Greene,	W. J. Soper.	Windham.

LOCAL WARDENS IN OHIO.

Stark,	A. Dangeleisen,	Massillon.
Franklin,	Brook L. Terry,	208 Woodward Av., Columbus.
Cuyahoga,	A. W. Hitch,	161 Osborn St., Cleveland.
Clark,	Fred C. Ross,	169 W. Main St., Springfield.
Erie,	David Sutton,	418 Jackson St., Sandusky.
Fulton,	L. C. Berry,	Swanton.
Allen,	S. W. Knisely,	Lima.
Hamilton,	W. C. Rippey,	4465 Eastern Ave., Cincinnati.
Knox,	Grant Phillips,	Mt. Vernon.
Lorain,	T. J. Bates,	Elyria.
Ottawa,	Frank B. Shirley,	Lakeside.
Muskingum,	Frank D. Abell,	Zanesville.
Scioto,	J. F. Kelley,	Portsmouth.

LOCAL WARDENS IN CONNECTICUT.

Fairfield,	George B. Bliss.	2 Park Row, Stamford, Ct.
	Harvey C. Went,	11 Park St., Bridgeport, Ct.
Fairfield,	Samuel Waklee,	Box 373, Stratford.
Litchfield,	Dr. H. L. Ross,	P. O. Box 100, Canaan, Ct.
Middlesex,	Sandford Brainerd,	Ivoryton.
New Haven,	Wilbur E. Beach,	318 Chapel Street, New Haven, Ct.
"	D. J. Ryan,	188 Elizabeth St., Derby.

LOCAL WARDENS IN MASSACHUSETTS.

Norfolk,	Orlando McKenzie,	Norfolk.
"	J. J. Blick,	Wrentham.
"	S. W. Fuller,	East Milton.
Suffolk,	Capt. W. J. Stone,	4 Tremont Row, Boston.
Worcester,	B. H. Mosher,	Athol.

LOCAL WARDENS IN NEW JERSEY.

Mercer,	Jos. Ashmore,	124 Taylor St., Trenton.
Mercer.	Edw. Vanderbilt,	Dentzville, Trenton.
"	Roland Mitchell,	739 Centre St., Trenton.
Morris,	Joseph Pellet,	Pompton Plains
"	Chas. W. Blake,	Dover.
"	Francis E. Cook,	Butler.
"	Calone Orr,	Hibernia.
Somerset,	G. E. Morris,	Somerville.
Sussex,	Isaac D. Williams,	Branchville.
Union,	A. H. Miller,	Cranford.
	C. M. Hawkins,	Roselle.
Warren,	Jacob Young, Reuben Warner,	Phillipsburg.
Monmouth.	Dory-Hunt,	Wanaque.
Hudson,	A. W. Letts,	51 Newark St., Hoboken.

LOCAL WARDENS IN PENNSYLVANIA.

Jefferson,	John Noll,	Sykesville.
Perry,	Samuel Sundy,	Lebo.
Warren.	F. P. Sweet.	Goodwill Hill.
"	Nelson Holmes,	Cornplanter.
Juniata,	Clifford Singer,	Oakland Mills.
"	Ezra Phillips,	McAlesterville.
Venango,	G. D. Benedict,	Pleasantville.
Potter,	Ira Murphy,	Coudersport.
"	Wiley Barrows,	Austin.
"	Chas. Barrows,	Austin.
Crawford,	Jasper Tillotson,	Tillotson.
"	Geo. T. Meyers,	Titusville.
"	J. B. Lamb,	Buel.
Cambria,	W. H. Lambert,	720 Coleman Ave., Johnstown.
Butler,	F. J. Forquer,	Murrinsville.
Allegheny,	S. H. Allen,	Natrona.
Beaver,	N. H. Covert,	Beaver Falls.
"	W. R. Keefer,	"
McKean,	C. A. Duke,	Duke Center.
"	L. P. Fessenden,	Granere.
"	Wm. Holsinger,	Stickney.
Lackawanna,	Wm. Weir,	Moosic.
"	Wm. Major,	"
Carbon.	Asa D. Hontz,	East Mauch Chunk.
Cumberland,	J. C. Gill,	Mechanicsburg.
Wyoming,	Cyrus Walter,	Tunkhannock.
Tioga,	E. B. Beaumont, Jr.,	Lawrenceville.
"	G. H. Simmons,	Westfield.
Lycoming,	Jas. J. Brennan,	Oval.
"	B. D. Kurtz,	Cammal.
Delaware,	Walter Lusson,	Ardmore.
Montgomery,	L. C. Parsons,	Academy.
Bradford,	Geo. B. Loop,	Sayre.
Clarion,	Isaac Keener,	New Bethlehem.
Cameron,	Harry Hemphill,	Emporium.
Clinton,	M. C. Kepler,	Renovo.
"	Geo. L. Kepler,	Renovo.
Northumberland,	G. W. Roher, 505 Anthracite St.,	Shamokin.
Elk,	D. R. Lobaugh,	Ridgway.

LOCAL WARDENS IN MICHIGAN.

County.	Name of Warden.	Address.
Ottawa,	W. H. Dunham,	Drenthe.
Kalamazoo,	C. E. Miller,	Augusta.
Berrien,	W. A. Palmer,	Buchanan.
Cass,	Thomas Dewey,	Dowagiac.
Hillsdale,	C. A. Stone,	Hillsdale.
Lake,	John Trieber,	Peacock.

LOCAL WARDENS IN VIRGINIA.

Mecklenburg,	J. H. Ogburn,	South Hil.
King William,	N. H Montague,	Palls.
Smythe,	J. M. Hughes,	Chatham Hill.
King & Queen,	R. D. Bates,	Newtown.
Louisa,	J. P. Harris,	Applegrove.
Henrico,	W. J. Lynham,	412 W. Marshall. Richmond.
East Rockingham,	E.J.Carickhoff,	Harrisonburg.

LOCAL WARDENS IN WYOMING.

Fremont,	Nelson Yarnall,	Dubbis.
Uinta,	S. N. Leek, F. L. Peterson,	Jackson.
Carbon,	Kirk Dyer,	Medicine Bow.
Laramie,	Martin Breither,	Cheyenne.

LOCAL WARDENS IN TENNESSEE.

Sumner,	W. G. Harris,	Gallatin.
Stewart,	John H. Lory,	Bear Spring.
Robertson,	C. C. Bell,	Springfield.
Montgomery,	P. W. Humphrey,	Clarksville.
Madison,	H. T. Rushing,	Jackson.

LOCAL WARDENS IN NEBRASKA.

Hall,	E. C. Statler,	Grand Island

LOCAL WARDENS IN NEW HAMPSHIRE.

Cheshire,	S. C. Ellis,	Keene.
Sullivan,	G. A. Blake,	Lempster.
"	J. W. Davidson,	Charlestown.

LOCAL WARDENS IN VERMONT.

Rutland,	Wm. J. Liddle,	Box 281, Fair Haven
Windsor,	F. A. Tarbell,	West Bridgewater.
Orleans,	E. G. Moulton,	Derby Line.
Essex,	H. S. Lund,	Granby.

LOCAL WARDENS IN ILLINOIS.

Rock Island,	D. M. Slottard.	12th Ave and 17th St., Moline.
Iroquois,	J. L. Peacock,	Sheldon.

LOCAL WARDENS IN OKLAHOMA.

Kiowa and Comanche Nation,	A. C. Cooper,	Ft. Sill.

LOCAL WARDENS IN IOWA.

Clinton,	D. L. Pascol,	Grand Mound.
Pottawattamie,	Dr. C. Engel,	Crescent.

LOCAL WARDENS IN WASHINGTON.

Okanogan,	James West,	Methow.
Stevens Co.,	Jacob Martin,	Newport.

LOCAL WARDENS IN UTAH.

Washington,	S. C. Goddard.	New Harmony.

LOCAL CHAPTERS.

Albert Lea, Minn.,	H. A. Morgan,	Rear Warden.
Angelica, N. Y.,	C. A. Lathrop,	"
Augusta, Mont.,	H. Sherman,	"
Austin, Minn.,	G. F. Baird,	"
Austin, Pa.,	W. S. Warner,	"
Boston, Mass.,	Capt. W. I. Stone,	"
Buffalo, N. Y.,	H. C. Gardiner,	"
Cammal, Pa.,	B. A. Ovenshire,	"
Champaign Co., O.	Hy. F. MacCracken Urbana,	"
Charlestown, N. H.,	W. M. Buswell,	"
Cheyenne, Wyo.,	J. Hennessy.	"
Choteau, Mont.,	G. A. Gorham,	"
Cincinnati, Ohio,	B. W. Morris,	"
Coudersport, Pa.,	I. L. Murphy,	"
Cresco, Iowa,	J. L. Platt,	"
Davis, W. Va.,	J. Heltzen,	"
Dowagiac, Mich..	W. F. Hoyt,	"
East Mauch Chunk,	Pa., E. F. Pry,	"
Evansville, Ind.,	F. M. Gilbert,	"
Fontanet, Ind.,	W. H. Perry,	"
Ft. Wayne, Ind.,	W. L. Waltemarth	"
Great Falls, Mont.,	J. M. Gaunt,	"
Heron Lake, Minn.,	K. C. Buckeye,	"
Hollidaysb'g, Pa.,	H. D. Hewit,	"
Hopkinsville, Ky.,	Hunter Wood,	"
Indianapolis, Ind.,	Joseph E. Bell,	"
Jerome, Ariz.,	Dr. L. A. Hawkins,	"
Johnsonburg, Pa.,	W. J. Stebbins,	"
Kalispell, Mont.,	John Eakright,	"
Keene, N. H.,	F. P. Beedle,	"
Kingfisher, Okla.,	A. C. Ambrose,	Rear Warden
Lake Co., Ind.,	Dr. R. C. Mackey,	"
Lawton, O. T.,	Marion Miller,	"
Logansport, Ind.,	E. B. McConnell,	"
Ludington, Mich.,	G. R. Cartier,	"
Mechanicsburg, Pa.,	Dr. J. H. Swartz,	"
Minturn, Colo.,	A. B. Walter,	"
New Albany. Ind.,	Dr. J. F. Weathers,	"
New Bethlehem, Pa.,	Isaac Keener,	"
Penn Yan, N. Y.,	Dr. H. R. Phillips,	"
Princeton, Ind.,	H. A. Yeager,	"
Reynoldsville, Pa.,	C. F. Hoffman,	"
Ridgway, Pa.,	T. J. Maxwell,	"
Rochester, N. Y.,	C. H. McChesney	"
St Paul, Minn.,	O. T. Denny,	"
St. Thomas, Ont.,	L. J. Hall,	"
Schenectady, N. Y.,	J. W. Furnside,	"
Seattle, Wash.,	M. Kelly,	"
Syracuse, N. Y.,	C. C. Truesdell,	"
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The Dalles, Ore.,	C. B. Cushing,	"
Walden, N. Y.,	J. W. Reid,	"
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C. H. Ferry, 1720 Old Colony Bldg., Chicago, Ill.
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E. H. Dickinson, Moosehead Lake, Me.
Lorenzo Blackstone, Norwich, Conn.
A. L. Prescott, 90 W. Broadway, New York City.
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Austin Corbin, 192 Broadway, New York City.
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E. B. Smith, Bourse Bldg., Philadelphia, Pa.

There are thousands of men in the United States who should be life members. Why don't they join? Will someone please take a club and wake them up?

REPORT FROM WASHINGTON COUNTY.

Unfortunately there seems to be no organized effort to enforce the game and fish laws throughout this section, except by 3 or 4 L. A. S. members in this village, 3 of whom are local wardens.

It has taken us fully 2 years to educate and interest the people in our protection work, as the newspapers of the county have seen fit to censure us every time we made an arrest. That did not stop us, though, and I am glad to state that at last the people are desirous of having the laws enforced. The following is our list of prosecutions:

Charles Wilson, fyke netting, acquitted; George Montanni, fyke netting, acquitted; Rodger Derome, set lining, $10; Charles Gordon, set lining, $10; Gilbert Maddeson, hounding deer, $25; Edwin Steeves, hounding deer, $25; Charles Dorn, fyke netting, 25 days in jail; William Petty, possession bass, $20; Clarence Gregory, violation of Section 33, $10; judge suspended sentence; William Adams, fyke netting, case not yet disposed of.

We were beaten in the first 2 cases, as the sentiment was entirely against us then. Besides these prosecutions I have destroyed since last spring 68 fyke nets, 4 feet to 7 feet in diameter, with hedges 15 to 200 feet long, 2 gill nets, and many set lines and tip-ups.

William Koch, Jr., Whitehall, N. Y.

LEAGUE NOTES.

Mr. C. A. Durell, of Reading, Pa., a League member, writes me that in July last he caught H. B. Hintz in the act of killing blackbirds. Mr. Durell told Mr. Hintz he was violating the State law, but Hintz replied that he was out for an afternoon's sport and intended to have it, even if he had to pay a fine. Mr. Durell accordingly placed the matter in the hands of Dr. Kalbfus, Secretary of the State Game Commission, who sent a warden to prosecute. Mr. Hintz was called up in court and fined $10 for each bird killed, making an aggregate of $40.

There is scarcely a day when some League member does not cause some lawbreaker to be run in. This reminds me again that in 1898, when the League was organized, the A. D. G. H. predicted that the League would never "accomplish any important achievements."

As soon as I was informed that Geo. Massey was killing deer and elk in the Sacramento mountains, I appointed a competent game warden in that section and instructed him to act promptly, to advise the district attorney of the district and to bring action against Massey. I understand the matter is being attended to. You may rest assured I shall instruct the district attorney to prosecute Massey to the full extent of the law.

Miguel A. Otero.
Governor of New Mexico, Santa Fe, N. M.

Governor Otero is a League member and has responded in like vigorous manner to several other appeals that have been sent him from this office, in the interest of game protection.—EDITOR.

Through the persistent and energetic efforts of H. P. Hays and W. H. Gardner, of Hollidaysburg, Pa., a strong local chapter has been organized there. It has a membership of 150 and is making life a burden to the lawbreakers in that vicinity. Nine of these have been convicted and the League members are on the trail of several others, who will be brought to justice as fast as the necessary proofs of guilt can be obtained. The League posters are displayed all over Blair county, so that even he who runs from an officer may read that there is a reward of $10 out for him. Friends of game protection everywhere should follow the example of these Blair county League men.

Lawton Chapter of the L. A. S., at its first meeting, elected the following officers: Rear Warden, Marion Miller; First Vice-President, Dr. Rosenberger; Second Vice-President, Dr. Tellis; Third Vice-President; Judge Jas. A. Morris; Fourth Vice-President, Geo. Harter; Secretary-Treasurer, Dr. W. M. Flexener. This chapter is now in running order and will strive to become the leading chapter of Oklahoma. In any event it will see that the game laws are enforced in this county.

Marion Miller, Lawton, Okla.

The Blair county branch of the League of American Sportsmen has perfected plans for a vigorous fall campaign against violators of the game law, directed especially against "sooners," or those who hunt before the opening of the legal season October 15. Each of the 30 odd township constables, who by the act of 1899 were constituted ex-officio game and fish wardens, has received from the League a copy of the game law and a circular of instructions as to its enforcement. The Pennsylvania State Game Commission has notified the local branch of its cordial sympathy and approval and will send a representative here next week to co-operate with the local officials in the work of game protection in the county.—Pennsylvania Paper.

Another live sportsman has come to the front. I refer to Mr. A. C. Cooper, of Fort Sill, O. T. A few weeks ago he went over to Lawton, rounded up the sportsmen there and sent in 25 applications for membership in the League, with a check for $25. As a result there is now a good, live, working chapter of the League in Fort Sill, under the leadership of Mr. Marion Miller as Rear Warden. Next!

FORESTRY.

EDITED BY DR B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes 30 years to grow a tree and 30 minutes to cut it down and destroy it.

THE BIG BASIN STATE PARK.

Last winter the Legislature of California appropriated $250,000 to be used in annual instalments of $50,000 for the purpose of acquiring for the State the remnant of virgin redwood forest, located South of San Francisco in the so-called Big Basin, formed by a broad valley and foothills of the Santa Cruz Mountains at their Northern terminus. The object of this purchase is to preserve as a pleasure park for the enjoyment and admiration of the citizens of the State and of the world at large one of the most magnificent examples of virgin forest growth, withdrawing it from the lumberman's axe, to which in the natural course of events it would in the near future fall a prey. For this purpose the 2,500 acres involved are most admirably located. There is no other such natural resort so accessible to so large a number of people. It will not only soon be unique in its character, when the rest of the virgin redwood forest is destroyed, but unique in its location; for it can be reached from San Francisco by rail to Boulder Creek in 2 hours and conveyance over a good road, and is, even now, easily available for a million people.

Last summer I visited this impressive region twice, in order to become familiar with its conditions, learn to appreciate its advantages, and wonder why the Commissioners appointed to make the purchase for the State are hesitating to secure the priceless possession for the people. Strange to say, although the Big Basin Lumber Company, the present owners, are willing to sell the property, in spite of the deferred payments, at a price which even at prevailing market rates would hardly pay for stumpage value, and are willing to add 1,300 acres as a donation for more complete protection of the watershed, the Commissioners hesitate. If reports are true, the objection is raised by one of the Commissioners that the price asked, $100 an acre, is too high, when similar timber can be bought for less than half that price in the Northern part of the State. It is a notorious fact that these Northern lands were secured from the Federal Government chiefly by fraudulent methods and it is hardly fair to make the price of stolen goods a basis of comparison for *bona fide* property. Neither is it proper to apply purely commercial standards in a proposition of this kind. The location of this property gives it a value for the purpose it is to serve far beyond its commercial value; which, moreover, is now above and in a few years will still more exceed the price asked. This may, indeed, become a repetition of the story of the Sibylline books. Unless there are other good reasons, unknown to the public, for deferring action, the hesitation of the Commissioners on account of price would appear suspicious.

The redwood forest in the Big Basin is composed of 3 species: the redwood, a congener of the Big Trees; the Douglas, or red, fir, a magnificent tree itself; and the tan bark oak, forming a lower tier; while a dense undergrowth of azaleas and other shrubs deepens the mystery of the forest and lends to it a feeling of woodsiness, which is absent in the open Sierra forest where the Big Trees are found, and which makes the redwood giants more interesting and impressive. The redwoods tower 300 feet and more above ground, with tall, straight shafts, without a branch for the greater length, bulging out at the foot to give support to the enormous trunk. On account of this gradual expansion at the root collar it is difficult to make diameter measurements, at a reasonable height, which will be fair. At the base many measure over 30 feet, but few probably exceed 18 feet above the swelling. The majority, indeed, are not such giants, measuring only 6 to 10 feet; while heights are quite uniform between 250 and 300 feet, with some in excess of the last figure. Of these giants there are found 5 to 20 and more an acre, often standing in close groups. Indeed, there is small doubt that many of these groups are sprouts from the stump of an old progenitor. The redwood sprouts freely and the sprouts make trees; in fact, on the cut-over lands this is the common method of reproduction. In the forest few young trees are found among the undergrowth. Ideas as to the age of the old growth have been exaggerated, although it is easy by counting the rings on the stumps of cut trees to ascertain their age. The larger number are between 500 and 800 years old. It is questionable whether many are above 1,000 or any above 2,000 years. The larger size does not necessarily predicate greater age, for trees grow at varying rates. During the first

200 years or so the rate of growth is rapid; trees of that age being 3 to 4 feet in diameter. The next foot is made in another 200 years and then a slow rate sets in until death occurs. How these trees come to their end is still an unsolved problem, for their wood is rot resisting to such a degree that the usual cause of the death of trees, fungus disease seems ruled out. Fires often lay these giants, and in this particular tract some prehistoric fires have ravaged and damaged many of them; the surrounding young growth showing that the last fire occurred more than a hundred years ago.

The preservation of this wonderful growth is a matter which interests not only the citizens of the State or the United States, but of the world, and it is hoped that no mishap or ill-considered economy will prevent the consummation of the proposed State park, which will equal in interest the Big Trees and exceed them in general usefulness on account of its accessibility.

PULP WOOD SUPPLY RUNNING SHORT.

The realization of a shortage in the natural supply of materials for paper manufacture is beginning to scare the newspaper world and suggestions regarding the remedy for a paper pulp famine are making the rounds of the press. Among these is one proposition made by the League of American Sportsmen at its last annual meeting, calling on Congress to offer a reward of $200,000 to any inventor bringing forth a substitute for wood pulp. Some enthusiastic lover of nature goes so far as to assert that "the man who shall invent a cheap and satisfactory substitute for wood pulp for paper will do more for forests and flowers than all the Legislatures in the country could accomplish in a century."

There was a time when the world could get along without wood pulp. Indeed, the use of wood pulp for paper in the United States is hardly 30 years old and assumed dimensions only 20 years ago. Since then, to be sure, the consumption has increased at a marvelous rate. While in 1881 the daily capacity of pulp mills was less than 800,000 pounds, it had more than doubled in 1887, and again more than doubled within 2 years in 1889, when it was nearly 4,000,000 pounds. Then rising steadily by about 1,000,000 pounds a year, it is now probably 15,000,000 pounds. This means an annual output of 1,500,000 tons of pulp, requiring 2,500,000 cords of wood. To this is added, in spite of high tariff rates, 2 to 3 million dollars' worth of imported wood pulp. This suggests the query how the abolition of tariff duties would help the question of lengthening supplies. Altogether, then, we now require annually about 3,000,000 cords of pulp wood.

If we take only 10 cords an acre of virgin forest as an average stand of material used for pulp wood, in the region now mainly concerned in the manufacture, 300,000 acres must be cut over annually to secure this supply. If we believe the measurings and figurings of the United States Forestry Bureau, the same quantity can be cut from the same acres in less than 25 years, again and again; hence, we would need less than 10,000,000 acres to furnish these supplies continuously, if the demand is not increased and the cutting is done with care.

The Northeastern States alone have twice that acreage fit for nothing else than timber growing; and if the owners would only study the question they could soon solve the problem of future wood pulp supplies by growing them at the rate of one cord an acre each year, under forestry methods.

Meanwhile, there are still large supplies in other parts of the country. The whole area of the Alaska coast forest, for instance, some 20,000 square miles, is one big wood pulp forest. Moreover, thousands of cords of pulp wood are wasted annually in all lumber districts, for finally the waste, tops and branches are fit enough for that use. Again, while manufacturers are still particular as to the species they want, constant changes are made. Some time ago balsam fir was refused by them; then a certain percentage was mixed with the spruce; now it is taken freely, and hemlock is also acceptable. Thus, by extension in the use of species, supplies will be increased.

Finally the "making of paper from corn stalks, wheat, straw and other vegetable product," for which the United States Congress was to offer a reward, is already an accomplished fact. Saw palmetto and many other vegetable fibers have long been known to be useful for the purpose, and the main question is merely as to the relative cost. It is stated that the National Fiber-Cellulose Company has been organized to make use of corn stalks for paper manufacture.

Foresters who have the commercial success of their art at heart, do not, however, wish to reduce the use of wood materials in any of the arts, and especially of the inferior and small sized materials, such as the acid factory is using and the pulp mill can use, when economy demands it. It is only reform in the manner of using the forest and attention to reproduction, that the forester advocates. To establish his business firmly an extension in the use of small and inferior parts of his crop is needed.

THE FOREST NURSERY.

Natural regeneration of trees by seeds is a slow and uncertain process. The floor of a forest, even of the densest and darkest one, is a well occupied place. Of the thousands of seeds, therefore, which a healthy tree matures and sheds, comparatively few ever sprout, and fewer still ever reach a stage when they are able to cope with their competitors for root space and light. It is, then, an important duty of the forester to help those seedlings which are valuable to him, in the struggle for existence, by providing a suitable place where the seed may sprout and the seedlings have the right conditions for developing. A place where trees are reared from seed is known as a nursery.

The largest nurseries in New York State growing purely timber trees are the 2 belonging to the New York State College of Forestry, at Axton and Foresters, N. Y. They are about 5 miles apart, and together produce 2,000,000 young trees, mostly conifers, white pine, Norway spruce, Scotch pine, Douglas fir, etc. Each covers an area of about 2 acres, laid out in small beds. In these beds, whose soil has been cultivated, the seeds are planted in regular rows, 6 inches apart. To protect the tender plants from the intense light and heat of the sun, as well as to retard evaporation, every bed is protected by a lath screen. It is here that the future pine and spruce forests have their origin, the seedlings, when 2 or 3 years old, being planted out on the cut areas and on the burns and slashes. By the end of the first summer, if proper care is taken, and the beds are kept clear of weeds, the trees have grown about an inch in height, with a root system of about an inch and a half. At the end of 3 years they may attain a height of over half a foot, when they are ready to be set out.

Occasionally the small trees are transplanted from one bed into another before leaving the nursery. The chief purpose of this operation is to give the seedlings, which are crowded in the original bed, room to expand their root system. More often, however, this transplanting process is omitted; and when 2 or 3 years old the trees are carefully taken out, wrapped in sphagnum moss, and shipped to the places where they are finally to be planted. Extreme care must be taken to leave the root system intact during the transportation. If handled properly, between 80 and 100 per cent. of the trees transplanted will take root in the new soil and thrive. More than one million trees have been set out from these nurseries in the last 3 years, and nearly 1,000 acres of waste land have in this way been redeemed to useful production at a cost varying from $5 to $10 an acre.

WHAT WOODS NOURISH ANIMALS.

In the light of the knowledge that the wood of coniferous trees may at certain times and seasons contain considerable quantities of mannan, which is an approved food for ruminating animals, there would seem to be need of studying anew an old and somewhat disputed, not to say despised question, as to whether or not sawdust may have any value as a cattle food when used instead of straw as an ingredient of rations for maintaining idle animals. Reports have several times been made by German farmers who claimed to have obtained useful, practical results on feeding sawdust to neat cattle; while Professor F. Lehmann's digestion experiments with sheep went to show that sawdust is practically indigestible and useless as food for these animals. It would be interesting to know what kinds of woods were administered to the animals in all these cases and at what time in the year the trees had been cut.

Kellner found that oxen fed with 2 kilograms a head of fine spruce sawdust mixed with 0.4 kilograms of molasses and 7 kilograms of cut hay ate the fodder freely, and digested 9.4 per cent of the carbohydrates of the sawdust, and 8.4 per cent of its cellulose, or, together, 17.7 per cent ; against 12.90 per cent of the carbohydrates and 23.1 per cent. of the cellulose (together 36 per cent) in the straw of winter grain, when such straw was fed to the animals instead of sawdust. He argues that, in times of dearth, fine, fresh spruce sawdust may well be used to replace straw in the rations of idle oxen, and that, when properly balanced by appropriate nitrogenous food, it may be regarded as possessing about one-half the nutritive value of straw for maintaining oxen.—Storer, in Bulletin, Bussey Institute.

I became a subscriber to your magazine last March. Since then I have received it regularly. RECREATION is the best sportsman's magazine published; full of news and excellent stories. The absence of fiction in most of the stories is a prominent feature. They are manifestly accounts of actual experience. Those who desire a change from the desk or the shop should read RECREATION and they will return to their work refreshed by the spice and originality of the stories it contains.

Arthur E. Palmer, Schenectady, N. Y.

No lover of sunshine and outdoor sports and life, can pass RECREATION. Confined to my office most of the time, its pages are a vacation to me.

J. G. Wheat, Louisville, Ky.

PURE AND IMPURE FOODS.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH.D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

PURE FOOD LEGISLATION.

The importance of securing pure foods is now widely recognized. A number of the States have enacted general legislation regarding the manufacture and sale of food, and several others have laws regarding the sale and manufacture of one or more products. The United States Department of Agriculture, especially through the Bureau of Chemistry, has carried on extensive investigations regarding food adulteration. Many important investigations regarding the character and extent of food adulteration and sophistication have been carried on in different States by the State experiment stations, State boards of health, colleges and universities, etc., and the Canadian Government has also made important contributions to the subject.

The primary object of pure food legislation is to protect the consumer and the producer also. The consumer of impure or adulterated goods is injured in health or purse, or both, while the business reputation and purse of the maker of first class goods are injured by flooding the market with adulterated or sophisticated products. Other objects of pure food legislation are to determine what constitutes adulteration in different cases, to fix standards of purity, and to make regulations regarding labels and printed statements of the character of various products. While many States have laws making the sale of adulterated food a misdemeanor and have done more or less in the way of executing these laws, Massachusetts claims to be the pioneer in this field of State work. In 1883 the State Board of Health, then called the Board of Health, Lunacy, and Charity, began the systematic inspection of food and drugs, acting under the authority of a legislative act of 1882. The State Department of Food and Drug Inspection was organized and samples of foods and drugs were bought and analyzed by chemists employed for the purpose. In addition to Massachusetts, a number of other States have more or less strict legislation regarding the inspection and sale of foods. This list includes Connecticut, Idaho, Kentucky, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Maine, Michigan, Minnesota, Missouri, Montana, Ohio, Oregon, Pennsylvania, Vermont and possibly others. The States differ regarding the strictness with which the laws are enforced. For instance, the Connecticut law makes it unlawful for any person to manufacture or offer for sale any article of food which is adulterated or misbranded, and defines at length what constitutes adulterating and misbranding. The Connecticut Experiment Station is charged with making analysis of food products suspected of being adulterated, samples being bought in the open market, for that purpose; and the station is authorized to fix standards of purity, quality or strength. The penalty for adulteration is a fine not exceeding $500 or imprisonment for not more than one year. The act carries an appropriation to the station of $2,500 a year to defray the expenses of the inspection.

The Kentucky law exempts spirituous, vinous, and malt liquors from the provisions of the law. The penalty for adulterating food products is the same as that fixed by the Connecticut law. The compensation which the station is to receive for the inspection is $5 and traveling expenses for each sample taken and analyzed, the expenses of the inspection in no year to exceed $2,500. These illustrations are sufficient to show the general character of the State laws.

The widespread adoption of the system of paying for milk and cream according to its fat contents, as determined by the Babcock test, has led Maine and Vermont to pass laws providing for the inspection of the graduated apparatus used in this and similar tests. The laws are also intended to limit the official use of the Babcock test to persons who have shown themselves competent to operate it. The Maine law was passed in 1895 and the Vermont law in 1898. The laws of the 2 States are alike in all essential details except the penalty.

The Maine law provides that all bottles, pipettes, or other measuring glasses used at any creamery, butter factory, cheese factory, or condensed milk factory in determining the value of milk or cream received from different persons, shall before use be tested by the experiment station for accuracy of measurement, and shall be ineffaceably marked to show that they have been tested. The experiment station carries on this work and is to receive for this service the actual cost incurred, the same to be paid by the persons or corporations for whom the apparatus is tested. The penalty for using untested apparatus is a fine not exceeding $50 for the first offense, nor $100 for each subsequent offense. All persons

who manipulate the Babcock test or any other test for the purpose of measuring the butter fat in milk or cream, for a basis of apportioning the values, are required to secure certificates from the superintendent of the dairy school of the State, who is the director of the experiment station, stating that they are competent and well qualified to perform the test. The rules and regulations governing the granting of these certificates are to be fixed by the superintendent of the dairy school, and the fee for issuing a certificate is not to exceed $1, to be paid by the applicant. The penalty for violating this section is a fine not exceeding $10. The law further forbids the use of sulphuric acid of less than 1.82 specific gravity for official purpose. The fine for having a weaker acid in possession where such tests are made is not to exceed $25 for the first offense or $50 for the second offense. It is made the duty of every milk inspector, sheriff, deputy sheriff, and constable to institute complaint against any person or persons violating the provisions of the law, and, on conviction, one-half of the fine is to go to the complainant, and the balance to the State.

The Vermont law omits the clause in regard to the employment of sulphuric acid of 1.82 specific gravity. The penalty for violating either of the other clauses is not exceeding $25 for the first offense nor $50 for each subsequent offense. In all other respects it is like the Maine law.

The fact is recognized that in many cases the provisions of the laws enacted simply represent the best available knowledge at the present time. Many investigations are needed before all disputed points can be settled and the fairest adjustment made as regards producer and consumer. It is evident to all that harmful materials should not be sold as food under any circumstances. In the manufacture of certain products it is claimed that the addition of some foreign substance is often necessary in order to secure the best results. Thus it is sometimes claimed that chocolate requires the addition of a certain quantity of starch. If this is true, the limit of such addition should be fixed by law. If mixtures are to be sold, they should not be given misleading names. Coffee with a little chicory added is sometimes said to be preferred to coffee alone, but the consumer should have the choice and should not be compelled to buy the mixture under the name of coffee.

In some States it is unlawful to add preservatives, such as boric acid, etc., to foods. Under any circumstances if preservatives or coloring matters are added to food, the fact should be plainly stated. The consumer can then judge whether he desires the goods or not. It is sometimes claimed that certain canned vegetables are not salable unless slightly colored and that the quantity of coloring matter present is not harmful. If the fact that such goods are colored with certain substances is plainly stated, there is at least no deception practiced. The use of any coloring matter or preservative material, which experience or observation has shown to be harmful should certainly be forbidden.

When either goods of inferior quality, or a mixture of such material and good material is sold at the same price and under the same name as articles of superior quality, the buyer is deceived if not injured. To be wise, pure food laws should be just to all parties concerned. The problem presents many difficulties, but is of such vital importance that it deserves even greater attention than it has up to the present time received.

COLD STORAGE POULTRY AND GAME.

The number of those who believe that freshly killed poultry and game are superior to cold storage goods has apparently increased. Decomposition is undoubtedly hindered in cold storage, but such lack the fine flavor of those recently killed. In the opinion of a recent writer "there is nothing attractive about cold storage poultry, yet there is a good sale for this class of goods. It is exposed for sale at the time when broilers and roasters are high in price and is good value for the price paid. It can never displace the fresh product, however, and poultry raisers need have no fear on that score.

"In autumn the big packing houses and storage companies begin to gather in chickens that weigh 2½ to 3½ or 4 pounds. These are considered choice stock and a fair price is paid for them. Even at that, the buyer makes an enormous profit simply by placing them on the market at the right time. Experienced poultry raisers recognize this fact; and while they can not store their chickens for future sale, they can and do hatch them earlier, and so are in a position to market them fresh when prices are high, just at the time the cold storage man gets his stock before the public.

"Most of the cold storage poultry is bought from farmers who have not yet learned to market their stock early in the season when the chicks are little and the prices are big. The day of the incubator and the brooder has come and poultrymen are now enabled to get out a lot of chicks early in the spring and so have them ready for the broiler market. Formerly the hatch, hatch and hatch again, with hens, from April to July prevented this. The farmer will doubtless rise to the occasion and buy an incubator when it has been

drilled into him that the May and June hatched chick is not the thing these days, and that his flock of a hundred chicks, sold in September at an average of 3 pounds each, would, if hatched 2 months earlier, have brought him double the price at an average weight of only 2 pounds. The present high price of beef has probably done more good to the poultry industry than anyone can estimate. It has taught an economical housekeeper that poultry, hitherto considered a delicacy, is, after all, obtainable at reasonable prices, and she will not forget."

A Chicago retail store has perfected arrangements for keeping poultry alive on the premises, and killing them as they are required. "Contrary to usage, the poultry in this establishment is fed from the time it is brought in until it is killed. The manager believes it keeps up the weight of the fowls, and as they are sold as soon as killed and dressed, their keeping quality does not bother him.

THE DIET OF THE LABORING CLASSES IN EDINBURGH.

Mr. Noel Paton and his associates have recently studied the dietaries of 15 families living in the thickly congested districts of Edinburgh, following the methods which have been advocated in connection with the nutrition investigations carried on by the United States Department of Agriculture. As regards income, the families were divided into 3 groups: Those with the regular wages under $5 a week; those with $5 to $5.75 a week, and those with incomes of $7 to $10 a week. The different families and groups are discussed at some length. On an average, it is stated, the typical diet of an Edinburgh laborer's family contained 107 grams protein, 88 grams fat, and 479 grams carbohydrates, together furnishing 3,228 calories. Both the protein and the energy were regarded as too small. More than one-half the protein was supplied by vegetable foods. Although more money was spent for animal foods than for vegetable foods, more nutritive material was supplied by the latter. The average cost of the diet was about $1 per man per week. The principal foods used were bread, potatoes, milk, vegetables, sugar and beef. Relatively large quantities of more expensive foods, such as beef, milk, and eggs, were consumed, and a relatively small quantity of cheaper food, such as oatmeal, peas, and barley. The authors note that there is a tendency to use bread and tea or bread and butter in place of the oatmeal porridge once so commonly eaten. The superior food value of porridge is pointed out. In order to improve the diet of families like a number of those cited, the authors believe they should be taught "that a diet of tea and bread, or of tea, bread and butter is faulty; that the faults of the tea and bread diet can be corrected by the free use of meat, eggs, or other animal food, but that this mode of correction is expensive; that the faults can also be corrected by the free use of oatmeal with milk, or of peas or beans, without extra cost; and that to correct the faults of a tea and bread diet, either money spent on animal food or labor spent on the cooking of vegetable food is necessary. If they have not the money, they must use the labor of properly cooking more nutritive foods."

WHEN IS MEAT SPOILED?

Most of us believe we can determine whether or not meat is spoiled by the senses of taste and smell. However, the term "spoiled meat" is only relative, some races relishing meat which others would consider entirely unfit for consumption. The natives of certain regions in South Africa esteem putrid meat a delicacy. More civilized races usually reject meat in which decomposition has proceeded so far that there is a noticeable odor or taste, although game is an exception, the "high" flavor of game being, of course, due to decomposition. A German investigator has recently studied the chemical changes brought about by decomposition. According to the author, these changes in meat may be divided into 4 classes. The first is not characterized by the presence of chemical decomposition products, although after 3 or 4 days the ratio of ammonia to total ammonia is increased. In the second stage amin bases of the aliphatic series, especially trymethylamin, can be detected, as well as amido acids. The third stage is one of marked decomposition. It is characterized by the odor, etc. In this stage, the amido acids disappear and fatty acids are observed; also, at times, indol and skatol. The amids become so abundant that they may be easily isolated. Finally ptomaines, for instance, putrescin, are observed. In the fourth stage, all these bodies slowly disappear, being replaced by simpler decomposition products, until finally only ammonia is noted. Naturally the first 2 stages are those which are of most interest to students of nutrition. If the ammonia content of any sample of meat or meat product exceed the normal, such goods can not longer be recommended; and if more than a trace of trymethylamin occurs, the meat is spoiled from a chemical standpoint. In case of sausages, the skins are characterized by the early occurrence of hydrogen sulphid, indol, and skatol, as well as relatively large quantities of amins and fatty acids. Therefore especial attention should be paid to the skins of the sausage and the material immediately adjoining, as this portion shows the first indication of decay.

BOOK NOTICES.

Under title of "The Kindred of the the Wild," L. C. Page & Co., Boston, have published a collection of Charles G. D. Roberts' latest stories of animal and forest life. Mr. Roberts is at his best in these stories, being heart and soul a lover and a careful student of the great North woods and having a definite theory of his own as to the reason for the existence of the animal story. Besides, he is always a writer of pure and beautiful English, and no careless, slipshod work mars the pleasure he gives his readers. He is particularly happy and poetic in his titles, as witness, "The Moonlight Trails," "The Lord of the Air," "The Haunter of the Pine Gloom."

"The Kindred of the Wild" is elaborately illustrated from drawings by Charles L. Bull, which are strong, imaginative, effective, and which add greatly to the attractiveness of the book.

"Company Commander's Manual of Army Regulations," is the title of a neat compendium published by the Hudson-Kimberly Company, of Kansas City, Mo., and written by Lieut. Wm. H. Waldron, of the 29th U. S. Infantry. The book is a compilation of all regulations and orders relating to duties of army officers, especially those who command companies or detachments. It is conveniently arranged, with an excellent index, and will be found most useful to the many young captains that the large increase of the army within the past 3 years has brought into the service. The manual contains blank forms and instructions for making out same, which, to the uninitiated, will be invaluable. It is a *multum in parvo*, and its low price, $1, and general handiness, should make it popular.

A timely book, "The Tactics of Coast Defense," has just been issued by the Hudson-Kimberly Co., of Kansas City, Mo. Its author is Major J. P. Wisser, of the Artillery Corps, U. S. Army. Major Wisser is one of the best known officers of the army on general tactics, and his work on coast defence possesses more than ordinary interest to military readers. Its value can, possibly, be realized only by the technical artillery student. The author undoubtedly uses in his compilation much material that is old, and a great deal of other material that is new but wholly theoretical and untried, yet his general conclusions are sound and convincing. The work must be of much worth to all artillery officers seeking to improve their arm of service. It is tastefully bound and sells for $2.

The manuscript of the "Trumpeter's Hand-Book and Instructor," by William S. Littleton, Chief Musician, 4th Cavalry, U. S. A., Fort Riley, Kansas, was referred by the Inspector General of the Division of the Philippines to a Board consisting of the Regimental Adjutants of the 6th Artillery, the 20th Infantry, and the 21st Infantry, to report on its merits. This board reported:

"The book is well adapted for use in the Army. It furnishes a simple and easy method of self instruction for persons who desire to become proficient performers on the trumpet, and consolidates into one volume the various calls pertaining to the several branches of the service."

Published by the Hudson-Kimberly Publishing Co., Kansas City, Mo.

The latest "Little Journeys to the Homes of Eminent Artists," by Elbert Hubbard, is "Gainsborough." It is uniform in style with the preceding pamphlets and contains a frontispiece portrait of Gainsborough. Its most delicious line, "From a fire-proof safe to liberal theology is but a step," happens not to be written about Thomas Gainsborough at all. However, much that is delightful and interesting is said in the booklet about the eminent artist, and readers of The Philistine will welcome this addition to the set.

Price, 25 cents; Roycroft Press, East Aurora, N. Y.

The U. S. Fish Commissioner has recently published a report on the fishes known to occur in Lake Champlain. The list embraces 54 species and is by Drs. Evermann and Kendall. Every species ever recorded from Lake Champlain or any of its tributary waters is included. The principal game fishes are the large mouth black bass, the small moutn black bass, wall-eyed pike, lake trout, brook trout, pickerel, pike, and muskalonge.

"Golf," by William G. Brown, is a defense of the game against its detractors, and a setting forth of the reasons why it should find a permanent home in America, to the lasting benefit of those Americans who continue to play it because they like it.

Published by Houghton, Mifflin & Co., Boston and New York; price 50 cents, net.

PUBLISHER'S NOTES.

A STRONG COMBINATION.

August 6 the Gundlach-Manhattan Optical Co. was incorporated with a capital of $600,000. This corporation takes up the entire plant and business of the Gundlach Optical Co. of Rochester, N. Y., and the machinery, stock, patents, and business of the Manhattan Optical Co. of N. Y., Cresskill, N. J. The plant of the latter company has been closed, and the effects are being removed to the Rochester plant of the new corporation, where all the product will be manufactured in the future. RECREATION readers know the Gundlach Optical Company as the manufacturer of Korona cameras and a complete and efficient series of lenses, headed by the Turner-Reich Anastigmat. They furthermore manufactured, in addition to a complete line of photographic goods, an excellent line of microscopes, objectives, and accessories, and had recently branched out into the manufacture of the Turner-Reich field glass. "It's all in the lens" is the trade mark of a line of goods favorably known wherever photography is practised. The Manhattan Optical Co. of N. Y. were the manufacturers of the Wizard cameras, a line that has steadily improved in every respect, and that has justly won the high regard of the photographic public. They also made a complete line of photographic lenses, which was recently amplified by the addition of the Verastigmat, concerning which much favorable comment has been made. The new combination is strong, and success awaits it.

HUNTERS LOOK TOWARD MAINE.

November, the month when thousands of mothers croon that simple lullaby,

"Bye baby bunting,
Papa's gone a-hunting,"

the month when Maine's wilderness receives its throngs of eager sportsmen, is almost here. What are you going to do about it? You'll join the crowd and go hunting, too, if there is a spark of sport-love left in you. The Maine wilderness is ever replete with scenic and other natural attractions; but this year's game supply, which, according to all reports, exceeds that of any season for some years past, will overtop all other attractions for the man behind the gun, and will cause him to long for Maine's open season to commence.

Every man who intends to make a trip into the Maine woods this fall should send first for a copy of "In Pine Tree Jungles," the new 174-page guidebook issued by the Bangor & Aroostock railroad. The book is filled with information concerning Maine's immense game region, where the big game is most likely to be found, how to reach it most easily, and a great deal of other timely matter which every sportsman will be glad to read. Send 10 cents in stamps to Geo. M. Houghton, Traffic Manager, B. & A. R. R., Bangor, Me., and a copy of "In Pine Tree Jungles" will be sent you by return mail. Please mention RECREATION.

OLD FRIENDS FORM NEW FIRM.

Some time ago I printed an article in RECREATION to the effect that Uncle Dan Lefever, of Syracuse, had gone into business for himself. I called on him a few days ago, and found him up to his eyes in work among a lot of other gun makers, including his 3 sons. The name of the new firm is D. M. Lefever, Sons & Co., and the address is 207 North Franklin street, Syracuse, New York. It would pay anyone to see this new gun shop, but, as most readers of RECREATION are too far away from Syracuse to avail themselves of the opportunity, the next best thing for them to do is to write for a catalogue, and to learn from that all about the high grade guns Uncle Dan and his crowd are turning out. They are making a specialty of 16- and 20-bore featherweight guns. These are made as light as 5 pounds, and even 12-bore as light as 5½ pounds. In these days of research and experiment in the direction of lightweight small bore guns, sportsmen in general will certainly be interested in this announcement.

The new house will also make you as heavy a gun as you want, and will make it right.

Uncle Dan has been making guns 53 years, and certainly knows all that is worth knowing about the business. His ad appears in this issue of RECREATION. When you write him please say where you saw it.

CAN DEPEND ON THEIR GOODS.

H. J. Putman & Company, Minneapolis, Minn., make in this issue of RECREATION a valuable offer. See Putnam's ad on another page. When you are in need of a pair of hunting boots or shoes, cut out this coupon, send your order and the coupon to Putnam, with check to cover, and he will send you the boots or shoes and a watch. You may feel perfectly safe in doing this. I know Mr. Putnam personally, have done business with him nearly 3 years, and have always found him thoroughly reliable.

In asking for this watch you need not ex-

pect a high grade movement nor a gold case. You will, however, get a good solid gun metal case, containing a movement that will keep good time. This will prove a practical, reliable watch to carry with you in the woods, enabling you to leave your good watch at home. It will also enable you to pawn your good watch for money on which to make your hunting or fishing trip. I hope, however, that this may not be necessary. Putman boots need no recommendation from me. Thousands of RECREATION readers are wearing them, and if you know any one of these men he will tell you the goods are all right.

EXPERIMENTS WITH THE KRAG.

The defeat of the American riflemen by the Canadian and Irish teams has spurred many experts who had faith in American marksmanship to look for the cause in the rifle and ammunition and the adaptation of one to the other. Dr. Hudson, who has been recognized as an authority in ballistics, after experiments with different barrels fitted to the Krag rifle, decided that a quicker twist than Government Standard would throw the 220-grain bullet with more gyrostatic stability and consequently greater accuracy at 1,000 yards. The ammunition companies also conducted experiments in changing the bullet so it would function better in the Krag as now chambered. A few weeks ago Mr. Thomas, of the U. M. C. Co., visited Sea Girt with an improved bullet, which was made without the 3 rings of the Government model and had certain other technical changes. With this bullet Lieutenant Leizear, of the Eighth Pennsylvania, made 73 out of 75 at 1,000 yards, which is the best score made up to that time with the service Krag. The best Canadian score made by the winning team last year was 64.

LATEST IDEAL NEWS.

The Ideal Manufacturing Co., of New Haven, Conn., is now ready to furnish its new Straightline hand loader. It will be made for 10, 12 and 16 gauge only. Price complete for one guage $2.50. It may be fastened to a bench or not, as desired.

This company has also decided to print and issue a 16-page booklet devoted entirely to the subject of loading and reloading paper shells for shot guns. The pamphlet is now in the hands of the printer and will soon be ready to send out to any address free of charge.

For years past the Ideal Hand Book has been a standard work among sportsmen, not only in this country, but all over the world. No man who desires to keep up with the procession regarding ammunition and gun implements can afford to be without a copy of this excellent book. The 1902 edition is just out, and every reader of RECREATION should write for a copy of it. Address J. H. Barlow, Manager, New Haven, Conn. Mention RECREATION.

KNOWS HOW TO PLEASE SPORTSMEN.

W. H. Jones & Co., dealers in wines and liquors, have a full page ad of their goods on the second page of the cover of this issue of RECREATION, and it is likely this announcement will be found there throughout the coming year. This is one of the oldest houses in this line of business in the country. It was established by William H. Jones, in 1851, and has enjoyed an enviable reputation for fair dealing from that day to this. Mr. Westley Jones, one of the members of the firm, is a thorough sportsman and a contributor to RECREATION. His article entitled, "On the Nez Perces Trail," published in July RECREATION, was read and enjoyed by thousands of sportsmen, and has called out many interesting comments. The man who enjoys hunting as Mr. Jones does must certainly know how to cater to the wants of other sportsmen. I have no hesitation in saying that any reader of RECREATION who may order goods from this house will get what he pays for, and will be pleased with it.

AN APPRECIATIVE MANUFACTURER.

We hand you herewith a communication just received from Plainville, N. J. We trust you will be able to give the writer the information he desires.

We are proud of our reputation as manufacturers of a good line of sportsman's specialties, but the credit of publishing the best sportsman's magazine in the country is not justly our due and we shall turn over all inquiries we may receive in this line for your consideration. We also beg to mention that we have just received a communication from Baron Paul Tcherkassov, of St. Petersburg, Russia, for information concerning our specialties and mentioning RECREATION as his source of information. In the past we have received many inquiries from several foreign countries mentioning RECREATION, so we judge that your publication is as well appreciated abroad as at home.

Marble Safety Axe Company, Gladstone, Mich.

Unauthorized persons, seeking to profit by the improvements in air mattresses devised by the Pneumatic Mattress & Cushion Company, and particularly their patented stays, are offering to customers mattresses which infringe the said patents and are mere evasions in the shapes of the stays and the arrangement of the stay ends or buttons for retaining the stays in the mattress wall without danger of leakage. Buyers and users of these articles are equally

liable under the law with manufacturers and sellers. Therefore the Pneumatic Mattress & Cushion Company asks its friends to notify it of any such infringement coming to their attention. Persons found with infringing mattresses in their possession will be held to full responsibility under the law.

Everyone ought to keep a little good whiskey in the house, for use in case of accidents, fainting spells, exhaustion, or other emergencies; but it should be good, pure whiskey. Poor, adulterated whiskey is injurious. Hayner whiskey goes direct from the distillery to the consumer, with all its original strength, richness and flavor, carries a United States registered distiller's guarantee of purity and age, and saves the enormous profits of the dealers. Read the offer of The Hayner Distilling Company elsewhere in this magazine. They are a reputable house, have a paid up capital of half a million dollars, have been in business over 36 years and will do exactly as they say.

Warren, Ohio.

Messrs. Wing & Son,
New York.

Dear Sirs: Twenty years ago we bought one of your pianos for use in our school. This instrument has been in constant service ever since, and is still good in tune and action. Among the large number of pianos owned by us there are 9 different makes, and I am pleased to say none of them stands wear or keeps in tune better than the Wing. During the past year we have bought several of your No. 5 and No. 6 pianos for classroom and other use. finding them in every case good instruments, worthy the confidence of anyone wishing a first class piano. Wm. H. Dana,
President Dana Musical Institute.

George H. Daniels, General Passenger Agent of the New York Central Railroad, announces that, in addition to the new 20-hour train, the road now has 4 24-hour trains to Chicago, and 2 Empire State expresses daily. The Twentieth Century Limited, 20-hour train, leaves New York every day at 2.45 p. m. and arrives at Chicago the next morning at 9.45.

The New York Central also has 15 trains a day between New York and Buffalo and Niagara Falls; 5 trains a day between New York and St. Louis and Cincinnati; 4 trains a day between New York and Montreal and by its Boston and Albany Division 4 trains a day between New York and Boston via Springfield.

Important information for farmers, stock raisers, manufacturers, miners, merchants, investors, tourists and amusement managers is given in a novel folder issued by the Union Pacific Railroad Company, containing 64 pages of matter concerning towns on the Union Pacific, Oregon Short Line and Oregon Railroad & Navigation Co., with the population of the towns, points of interest, statement of commercial enterprises both in town and tributary thereto, hotels, etc. In connection with this folder is a map which enables the reader to locate almost any point in the West.

Copies of this publication can be obtained of R. Tenbroeck, G. E. Agt., 287 Broadway, New York.

During March, 1902, the Page woven Wire Fence Company, of Adrian, Mich., shipped 169 full car loads of Page fence, and their local shipments for the same time amounted to 130 car loads more. It keeps the boys behind the looms busy.

On the average, the Page Fence Company weaves about 1,700 miles of wire into Page fence every day, except Sundays, and is increasing the number of looms every month.

If you think any other fence is as good as the Page just try it for a corral, or take it down and stretch it up again 8 or 10 times. That is a good test, and the Page fence was made to stand it.

H. S. Dills, Auburn, Indiana, makes the neatest and most compact line of decoy ducks I have ever seen. They are on the profile plan and fold down so you can easily carry a dozen of them in the pockets of your hunting coat. When set up and placed on the water, they have a remarkably lifelike appearance, and, unlike other profile decoys, they show plainly from above as well as from the side. Duck shooters who use decoys should know all about these, and, in order to get this information in a practical form, it would be well to order a sample. When writing, please mention RECREATION.

The Ithaca Gun Company recently placed an order for $25,000 worth of machinery, to be delivered at once. They will enlarge their factory to build 10,000 more guns in 1903, which will make an output of 30,000 guns for the next year as compared with 20,000 guns this year and 15,000 guns for 1901. This remarkable increase is due largely to the improvements put on the Ithaca gun, especially the new cross bolt.

The only reason we no longer carry an ad in RECREATION is that we have sold the patent rights of the Barger sight and do not now manufacture same.

Irving S. Rushworth, for Rushworth & Barger.

A LEAGUE MAN FOR GOVERNOR.

The Democratic party has nominated for Governor of New York the Hon. Bird S. Coler, a League member, who joined in 1898, and whose card number is 691. Here is an extract from the Democratic platform, on which Mr. Coler will stand if elected:

"We realize the necessity of furnishing full and adequate protection for the game animals, the game birds, the song and insectivorous birds, the game fishes and the forests of this State; and we pledge ourselves to do everything in our power to secure the enactment of good and wholesome laws to this end."

Under date of August 20th, I wrote the Chairmen of the Republican and Democratic State Committees, on behalf of the League, asking both to insert planks in their platforms expressing a due regard for the game and game fishes and the forests of this State. The Republican Committee made no reply to my letter, thus indicating plainly that they take no interest in this important subject.

The Chairman of the Democratic State Committee replied that the request of the League was reasonable and right, and that such a plank would be inserted in the Democratic platform. This was done, our plank was adopted, and a League man was named for the high office of Governor. Sportsmen may reasonably draw their own inferences. We need expect nothing at the hands of the Republican party in the way of game or forestry protection. On the contrary, the Democratic party pledges us that if placed in power it will use its utmost endeavors to secure the enactment of just laws for the protection of the wild animals, the game and song birds and the forests of this State. Now let every sportsmen in the State do his utmost to secure the election of Mr. Coler.

ANOTHER OLD GUNMAKER GONE.

The sportsmen of this country have sustained a serious loss in the death of Le Roy H. Smith, president of the Ithaca Gun Company, Ithaca, New York, which occurred in August last. Mr. Smith began life as a poor boy and by his industry and close attention to duty worked his way, step by step, to the head of one of the leading gun houses of the country. As a business man, he enjoyed the friendship and respect of all who knew him, and especially of the men who worked for and with him. He was always genial, sympathetic and courteous to everyone with whom he came in contact. By his industry and economy he amassed a comfortable fortune, and had just begun to enjoy, each summer, the recreation and outdoor life of which he was so fond and which all through his youth he had denied himself. He was a lover of outdoor sports and of nature, and his friends congratulated him on having finally acquired a position where he could enjoy these things, but he was seized with a fatal malady and taken away. Thus it is with the majority of us who have to work for our daily bread. We only begin to enjoy life when we get about through with it. Mr. Smith has furnished the means of outdoor pleasure to thousands of men, while denying himself a single indulgence. The great business which Mr. Smith built up will, of course, be continued under the management of his former associates, but they and the other good people of Ithaca will feel his loss as long as any of them live.

WILL HE DO AS ODELL DID?

Game Wardens Hill and Springer, of Seattle, Wash., both of whom are members of the L. A. S., recently descended on the Diamond Ice and Storage Co., of that city, where they unearthed several boxes of wild fowl, grouse and prairie chickens, aggregating some 300 birds. The manager of the cold storage house of course claimed

that the birds did not belong to him, but that they had been placed there by Maison Barberis, a restaurant keeper, and F. D. Black, a hardware man. The manager of the storage plant was, however, placed under arrest, as were 2 other men, and the birds will be produced in court as evidence in the prosecution. It will be interesting to know the result of this case and to find out whether the Governor of Washington will next winter advise the Legislature to pass a law allowing the storage of game in close season in order that it may be sold when the open season comes. That is what Governor Odell did in New York. He not only recommended but secured the passage of such a law, and this caused an action against a cold storage house in this city, in which 55,000 head of illicit game had been found, to be discontinued.

EGGS MAY BE IMPORTED.

The Hon. John F. Lacey has done still another great service in the cause of game protection and propagation in securing the passage through Congress of a bill authorizing the importation of the eggs of game birds for purposes of propagation. The bill provides that the Secretary of Agriculture shall have full control of such importations, and in accordance therewith Dr. T. S. Palmer has prepared, and the Secretary has issued a circular (No. 37) giving full information as to what steps are necessary in order to secure authority to import such eggs.

The eggs of the following species of birds may be imported under these regulations:

Wild turkeys, grouse, capercailzie, pheasants, partridges, quails, bustards, rail crakes, swans, geese and ducks.

Anyone interested in this subject can get a copy of the circular by writing Dr. T. S. Palmer, Agricultural Department, Washington, D. C.

NO JACKLIGHTS IN RECREATION.

Here is a copy of a letter which I recently wrote a Western sporting goods dealer and which explains itself:

I can not accept your order for advertising. The search lamp you make is purely and simply an aid to the fish hog and the game hog, 2 species of vermin I am trying to exterminate. The use of such devices as this is prohibited by law in many of the States, and should be in all of them.

I need all the advertising business I can get, but I will not advertise any article that would so materially aid in the wholesale and unsportsmanlike destruction of game and fish as this machine of yours would.

Now let us see if any of the other sportsmen's journals decline this ad. You will doubtless see it illustrated in all of them in the near future; or at least in as many of them as can get the order.

Dr. T. S. Palmer, Assistant Chief of the Biological Survey, Agricultural Department, has issued Circular No. 35 containing a revised list for 1902 of State officials and organizations concerned with the protection of birds and game. This circular gives the names and addresses of practically all the State fish and game officers of all the States and the Canadian Provinces; also a list of the game and bird protective associations, such as the League of American Sportsmen, the Audubon societies, the A. O. U., etc. Persons interested in the subject can get copies of this circular by writing Dr. Palmer, and it is not necessary to enclose postage.

The New York Sun, which ought to know better, recently printed a long article, lauding the alleged sport of dove shooting as practised in Kansas, Texas and the Indian Territory, and, in fact, nearly all over the South. As RECREATION has frequently said, the dove is a beautiful and harmless bird and in the judgment of the best sportsmen of the country is in no sense a game bird. It should not, therefore, be killed at any time. I trust the day will come when all Southern sportsmen will realize this and will ask for and secure the enactment of laws protecting doves at all times.

A dispatch from Madison, Wis., dated August 9, and printed in a Chicago paper, said that Mr. and Mrs. C. D. Moon, of Chicago, who were camping at Spider lake, Sawyer county, Wis., each killed a deer in the early part of August. Deputy Wardens Carpenter and Bowman happened in at the camp, learned the facts, and took Mr. and Mrs. Moon to Hayward, where they were fined $25 and costs each. These people have, no doubt, learned by this experience that it does not pay to violate the game laws.

If the correspondent who signs himself "A Constant Reader," Cincinnati, Ohio, will give me his name and full address I will reply to him direct.—EDITOR.

Will Mr. C. N. Truman, formerly of Ouray, Colo., please send his present postoffice address to Mr. W. C. Cortright, Box 62, Wyoming, Pa.

Will Mr. M. F. Tatman, who wrote me some weeks ago about "A Fishing Picnic," please write again and give me his address?

Schlitz

BEER is Healthful

But a "green beer"—beer insufficiently aged, half-fermented — ferments on the stomach, causing biliousness and headaches.

Schlitz Beer is well aged.

There is beer that's not pure—not free from bacilli. It's not good for you.

But Schlitz Beer is pure.

None but the costliest materials go into Schlitz Beer—the best of barley, hops and yeast. A partner in our business selects them.

We spend more on cleanliness alone than the whole cost of brewing without it.

We cool Schlitz Beer in plate glass rooms, and filter all the air that touches it.

That's an extreme precaution.

We age it for months, at a temperature of 34 degrees, before we market it.

That's a heavy expense.

Then we filter the beer, then sterilize every bottle after it is sealed. Sterilized beer can't have germs in it.

Yet Schlitz Beer—brewed with all these precautions, that double the cost of the brewing—costs you no more than common beer, if you will ask for it.

Schlitz

THE BEER THAT MADE MILWAUKEE FAMOUS

Ask for the brewery bottling.

A CAMP HUNT IN ONTARIO.

The morning of November 8 Bob and I put out in a skiff from Sheguindah bay, Manitoulin island. We were bound across North channel for a hunting trip on the Canadian mainland. We rowed hard all day through channels between the beautiful pine-clad islands so numerous in those waters. It was late in the evening when we reached the North shore and landed at Flat point. There we pitched tent, purposing to remain if we found game abundant.

The tall timber grows to the water's edge at that point; while 500 yards or so from shore a high rock ledge runs parallel with the lake, pierced at intervals by deep ravines choked with underbrush. Altogether it seemed a likely place for grouse and deer, and even for larger game.

Soon after we turned in, a furious gale sprang up, with occasional flurries of snow. The tent was sheltered from the storm by the ridge behind it, but we were several times awakened by the roar of the wind through the pines or the whistle of some tempest-tossed steamer on the lake.

At early dawn I heard the flutter of wings just outside the tent. I grabbed my rifle and, telling Bob our breakfast had come to us, stole out. Three grouse were perched in a tree near the tent. A bird's head is a difficult mark in the dim light of dawn. My first shot was a clean miss; my second scored, and a headless grouse fluttered to the ground.

At breakfast we vowed we would have venison for supper, but though we hunted faithfully all day and saw many tracks we had to be content with another bird.

The second day we had better luck. While cautiously beating up a small ravine I saw a large buck about 50 yards ahead. He was browsing maple saplings and stood almost facing me. Presently he shifted enough to expose his shoulder and I fired, the bullet striking where I aimed and going clear through.

With a prodigious bound he started on a course that brought him within 30 feet of me. Then I fired again, but the bullet evidently passed in front of him, for its only effect was to turn his rush directly toward me. Whether he really intended to charge me I do not know. At any rate, I gave him credit at the time for that amount of pugnacity and lost no time in side-stepping. The buck dashed past me and into a tangle of fallen timber, where he fell. Before he could regain his feet I got in a shot that finished him.

We spent several days at the point, and before they were over Bob also killed a deer. In addition we brought down a good bunch of grouse and other birds.

L. H. Trotter, Sheguindah, Ont., Can.

IF YOU WOULD LIVE NEXT TO NATURE READ RECREATION

DUCK SHOOTING ON THE MISSISSIPPI.

The April day was fast drawing to a close when I alighted at a little station on the banks of the Mississippi, in Iowa. I was met by Frank and Lew, 2 of the boys who had reached the club house, just across the river, that same morning.

Daybreak next morning found us trudging with guns and dogs toward one of the marshes close to the river, there to put out our decoys and await the first streak of dawn and flight of ducks. Just as it was light enough to see I heard Lew's 10-bore and turning saw a flock of cannonballs almost over my decoys. Pulling on the leader I doubled him up at about 50 yards, but scored a clean miss with my second. In a few minutes I heard Frank, who was some hundred yards above me, fire twice. His shots scattered the flock and a single bird headed my way, which I bagged in good shape. After waiting until the sun was well up we started back, not having a chance at another bird.

That evening the shooting was equally poor; Frank bagging 2 mallards and Lew one, while I had to be content with an empty bag.

In the morning we were delighted to find that the rain of the evening before had turned to a fine snow, which promised sport galore for that day. Making rather a late start we headed for Goose pond, back from the river and well sheltered by a thick growth of willows around its borders. At the pond and before we could place our decoys to our satisfaction, a flock of about 20 cannonballs came right over us. Hastening ashore and taking our places a few rods apart, we were soon ready. After a short interval a lone duck came within easy range and I dropped it with my left. Lew shot almost at the same time at a small flock, making a double.

By that time the snow was so blinding that we could barely see the ducks as they dropped over our decoys. They were coming in flocks, and we had as lively shooting, for about an hour, as heart could wish. We had been so busy with the ducks that when a lull came in their flight, we were surprised to find the storm had cleared and the sun was shining. We knew that ended the sport for the day at least, and after a short wait we pulled up our decoys and started for camp. A count of birds showed we had 32; so concluding we had our full share we decided to break camp the next morning.

Chas. P. Hanley, Iowa City, Ia.

The ad I inserted in RECREATION for a hammerless gun found me a great bargain. I entered ad in 4 other sportsmen's journals and find RECREATION is the leader.

THE
EQUITABLE
"STRONGEST IN THE WORLD"

J.W. ALEXANDER
PRESIDENT

J.H. HYDE
VICE PRESIDENT

A HAPPY THANKSGIVING,

Twenty years ago—on November 28th, 1882—a young man, 31 years of age, took out Endowment No. 251,427 in the Equitable for $10,000. He paid $487.40, and each year since has paid a similar amount.

This year—two days before Thanksgiving—his policy matures, and he can receive in cash

$14,885.30

This is a return of all premiums paid—and $5,137.30 in addition—to say nothing of the protection of $10,000 of assurance for 20 years.

Vacancies in every State for men of energy and character to act as representatives.
Apply to GAGE E. TARBELL, 2nd Vice President

Send this coupon for particulars of such a policy issued at your age.
THE EQUITABLE SOCIETY, 120 Broadway, New York. Dept. No. 16

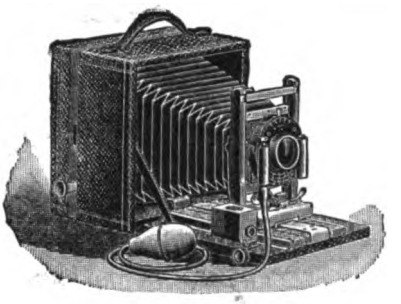
Please send me information regarding an Endowment for $.....
if issued at.....years of age.

Name.....

Address.....

IT'S ALL IN THE LENS

Series V Long Focus Korona



Can be used with equal facility for everyday, hand-camera

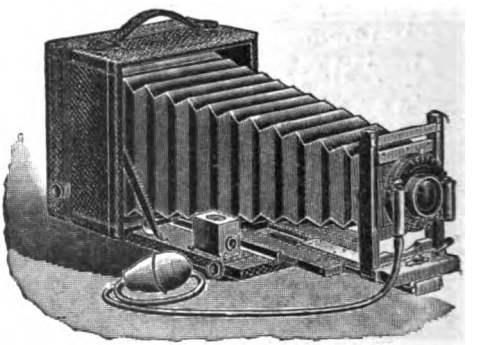
Snap Shots
Photographing Distant Views
Copying

or other work needing bellows capacity, and also with wide-angle lenses for interiors and kindred subjects.

ONE CAMERA DOES IT ALL

Every adjustment is a marvel of simplicity and mechanical ingenuity, and many of them are found exclusively on the Korona.

Note our patent auxiliary bed for use with wide-angle lenses, and compare it with



the clumsy methods used to obtain this result on other cameras.

Our patent automatic swing back operates from the center according to correct principles.

KORONA LONG FOCUS

Has a Convertible Lens, Automatic Shutter, and numerous other special advantages.

Catalogue gives full information .

Gundlach-Manhattan Optical Co.

ROCHESTER, N. Y.

Mention Recreation

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AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

7th ANNUAL COMPETITION.

RECREATION has conducted 6 amateur photographic competitions, all of which have been eminently successful. The 7th opened April 1st, 1902, and will close November 30th, 1902.

Following is a list of prizes to be awarded:

First prize: A Long Focus Korona Camera 5 x 7, made by the Gundlach Optical Co., Rochester, N. Y., fitted with a Turner-Reich Anastigmat Lens, and listed at $85.

Second prize: A No. 3 Folding Pocket Kodak, made by the Eastman Kodak Co., Rochester, N. Y., fitted with a Bausch & Lomb Lens Plastigmat Unicum Shutter, and listed at $61.50.

Third prize: An Al-Vista-Panoramic Camera, made by the Multiscope and Film Co., Burlington, Wis., and listed at $40.

Fourth prize: A Wizard C Camera, 4 x 5, made by the Manhattan Optical Co. Cresskill, N. J., with B. & L. Iris Diaphragm and Leather Carrying Case; listed at $33.

Fifth prize: A Waterproof Wall Tent, 12 x 16, made by D. T. Abercrombie & Co., New York, and Listed at $32.

Sixth prize: A Gold Hunting Case Watch; ilsted at $50.

Seventh prize: A Tourist Hawkeye Camera, 4 x 5, and made by the Blair Camera Co., Rochester, N. Y., and listed at $15.

Eighth prize: A Bristol Steel Fishing Rod, made by the Horton Mfg. Co., Bristol, Conn., and listed at $6.

The 10 next best pictures will each be awarded one dozen 8 x 10 Carbutt Plates, made by the Carbutt Dry Plate Co., Wayne Junction, Philadelphia, Pa.

The 10 next best pictures will each be awarded one dozen 5 x 7 Carbutt Plates.

The 10 next best pictures will each be awarded one dozen 4 x 5 Carbutt Plates.

A special prize: A Goerz Binocular Field Glass, listed at $74.25, will be given for the best picture of a live wild animal.

Subjects are limited to wild animals, birds, fishes, camp scenes, and to figures or groups of persons, or animals, representing in a truthful manner shooting, fishing, amateur photography, bicycling, sailing or other form of outdoor or indoor sport or recreation. Awards to be made by 3 judges, none of whom shall be competitors.

Conditions: Contestants must submit 2 mounted prints, either silver, bromide, platinum or carbon, of each subject, which, as well as the negative, shall become the property of RECREATION. Negatives not to be sent unless called for.

In submitting pictures, please write simply your full name and address on the back of each, and number such prints as you may send, 1, 2, 3, etc. Then in a letter addressed Photographic Editor, RECREATION, say, for instance:

No. 1 is entitled —— ——.
Made with a —— —— camera.
—— —— lens.
On a —— —— plate.
Printed on —— —— paper.
Length of exposure, —— ——.

Then add any further information you may deem of interest to the judges, or to other amateur photographers. Same as to Nos. 2, 3, etc.

This is necessary in order to save postage. In all cases where more than the name and address of the sender and serial number of picture are written on the back of prints I am required to pay letter postage here. I have paid as high as $2.50 on a single package of a dozen pictures, in addition to that prepaid by the sender, on account of too much writing on the prints.

Any number of subjects may be submitted.

Pictures that may have been published elsewhere, or that may have been entered in any other competition, not available. No entry fee charged.

Don't let people who pose for you look at the camera. Occupy them in some other way. Many otherwise fine pictures have failed to win in the former competitions because the makers did not heed this warning.

HOW THE WOODCOCK PHOTO WAS TAKEN.

I see in August RECREATION Mr. J. E. Tylor, of Oxford, Md., objects to my criticism of his photo, "Besieged." I did not say there was a string running from the coon's collar. I said there appeared to be one. I believe that other RECREATION readers interested in this last contest will agree with me that something looking much like a collar is around the coon's neck. Nevertheless, if the photo is genuine I congratulate Mr. Tylor on his ability to catch such an interesting scene.

Referring to his letter in RECREATION regarding the water being "sufficiently choppy to meet my ideas," I beg to differ from him. The wind was not to blame, nor the camera, but the person who made the exposure. Had he broken the glare on the water a few moments before the photo was taken he would have had detail in the expanse of water between the man in the boat and the shore beyond. There is detail around the dog in the water.

Referring to Mr. F. A. Greenhawk's article in the same issue with Mr. Tylor's, I notice he makes the remark that if the coon had been held by a rope the line would have been slack instead of straight, as in the photo. Not necessarily. Possibly someone on the bank was holding the rope, or cord.

Criticising my woodcock photo, Mr. Greenhawk says, "Did you ever approach

the nest of a woodcock and see it slanting the way Mr. Gosney's picture shows it? His photo looks as if he was right up on tne bird."

I was.

Mr. Greenhawk further says, "Would that bird stay while Mr. Gosney got his camera in order? Birds are sensitive about being approached."

No, I never approached the nest of a woodcock and found it quite so slanting as my photo shows it. To a certain extent I am acquainted with the habits of a few of our wild birds, although not an authority. A friend of mine, Mr. Charles Saville, came to me the day before I secured the photo of the bird, said he had found a woodcock's nest, and for me to get my camera and come along. Of course I went. Mr. Saville approached the woodcock's nest carefully so as not to disturb her. That was about 4.30 p. m., and she had gone to feed. I set up my camera, about 8 to 10 feet from her nest. I focussed carefully and made the exposure on the nest alone. Before I folded my tripod and camera I took notes on how far tripod legs were spread, position of camera, scale in feet as shown on front board of camera, besides driving 3 small pegs where tripod legs stood. The next morning I went to the nest alone, moving carefully. I was rewarded by finding Mrs. Woodcock at home. My camera was already set on tripod, shutter ready, plate holder entered and slide drawn, bellows extended to scale according to my notes the day before. All that was necessary was to put tripod legs to the 3 small pegs and I was ready for exposure. I paid no attention to the bird till I took hold of the bulb to release the shutter. Then I looked down on her and was in the act of releasing the shutter when she arose from nest, her feathers all awry. She shuffled lazily around to back of her nest, then like a flash turned facing it, her head turned somewhat to one side. Thus she remained, like stone, watching her eggs, I can not say how long. I gave her 4 seconds' exposure. Then I picked up my camera and retreated slowly. The bird made a clucking noise, like an old setting hen, while she shuffled around to back of her nest. One wing hung down, as if injured, but when the photo was taken her wing and feathers lay in their normal position.

The day Mr. Saville discovered the nest he put a small stick under the bird's breast to raise her so he could see her eggs. At that time she also showed the disposition of a setting hen.

If you wish, I can send you the names of 50 people who at different times saw this mother woodcock at home. The reason the nest seems so slanting in the photo is because I wanted a panel view and the position of camera and tripod gave it the appearance of being slanted. It is possible to approach nearer a woodcock's nest during nesting time than it would be to the nest of a quail, a prairie chicken, wild duck, snipe, etc. I claim Mr. Greenhawk is wrong when he says a woodcock flies immmediately on being approached.

Homer G. Gosney.

UNCLE JOSH FOTOGRAPHS THE CALF.

When the summer gal was down here with her kodax, I had a brindle calf down in th' medder. He wuz mainly noted fer th' length uv his legs, an' th' wobbly way he used 'em; he wuz uv th' masculine gender.

Thet calf wuz jist old 'nuf tu be rambunkshus. Th' summer gal wuz determined tu take a picture uv thet calf, but th' dodgasted calf wouldn't hold still fer her tu git a fokus on him.

Well, one day she axed me wouldn't I hol' th' calf fer her; she sed she wuz makin' son. studies in "still life."

I guess she didn't find much still life in thet blamed calf.

I kinder hesitated, fer I know'd what kind uv a critter he wuz, but she wuz a mighty purty gal, an' when she made them hoo-doo eyes at me what could I do?

Well, after wrastlin him all over a 10 acre lot I got thet calf cornered an' got a close line tied 'round his neck tu hold him with.

He didn't seem anxious tu be took, but with some stratigem and a liberal application of cowhide boot I finally got him in a "proper pose," as th' gal called it.

She sed she wanted tu get th' tail in th' picture, and I didn't see how she could help it fer thet calf had his tail stickin' straight up in the air like a sore thum' all the time she wuz takin' him.

I begin to think that things wuz goin' to go off first rate, but I begin to feel happy too soon.

Jist as th' gal got us placed right, and had got a good fokus on the kodax, a feller come whizzin' past in one uv them naughty mobiles with the steam puffin' out behind.

Well scat my ——, yer otter see that calf go. He started fer th' other side uv th' medder like a streak uv greesed litnin' an' he tuk me along part uv th' way with him. Yer see th' long end uv th' close line had got tangled round my laigs an' when he started off so suddent like it jerked me ofen my feet an' drug me along th' ground till th' rope broke an' saved my life.

As I wuz a skootin' over th' ground my janes pance caught on a root er sompthin an' gol darn if they didn't rip from Genesis tu Revelations.

I guess I'd a swore if it hedn't bin fer thet summer gal.

Why, Uncle Josh! she sed, if I'd bin reddy, I could hev got another Gene Ray picture, an' I'd 'a' called it "Another Victim of Jersey Lightning."

Well, we fin'ly got M'ria tu help us; we cornered Mr. Calf agin an' tied th' close line good an' tight an' I held it. Then we tied the well rope on tother side an' M'ria held thet.

I couldn't stand very natural myself on account uv my pance, but I did th' best I cud tu look unconcerned. When th' pictur wuz dun th' gal showed it tu us. M'ria had cum out in a hurry, an' th' marks on her apurn where she had whipped th' flour ofen her hands showed up purty plain.

The gal sed I looked like "patience on a tombstone smilin' at beef."

I wonder if she meant anything by thet.

—Western Camera Notes.

THE CAMERA IS MIGHTIER THAN THE GUN.

Having wanted, for some time, to take pictures, I bought a camera. It was not one of the sort that win photo competitions, but still was a good enough picture taker. I studied the book of instructions until I mastered the art of loading the plate holder and putting it into the camera. Then I persuaded my wife to sit still long enough to have her picture taken. I met with so much success in this venture that I imagined I could take anything from a stack of hay to a runaway automobile; but after attempting to take a picture of a horse race I gave up the idea of the automobile, and turned my attention to snapping squirrels, rabbits, woodchucks, and birds.

Hunting these with a camera is one of the greatest enjoyments of my life. A grey squirrel may, now and then, taste good, and perhaps you could eat one with as much relish and little thought as a hog eats corn. A mounted grouse, quail or woodcock may adorn some corner of your study or office, but a portrait of one of these birds will represent far more skill and less expense.

If you have never tried taking the picture of a mother bird and her young, try it. Find where they live and put down cracked corn, wheat or buckwheat, or, better still, some salsify heads, of which most birds are extremely fond. After a short time the birds will find the bait. Set your camera near, focussing it on the spot, and tie to the finger release a string 200 or 300 feet long. Lay this out carefully so you can release the shutter without any disturbance in the brush. Next set your shutter at one second, and the diaphram in accordance with the amount of light. Retreat to the end of your string. There sit patiently until all is just as you wish it. In this way you will be able to get pictures that will bring you pure enjoyment, and will sell readily for a good price.

The man who hunts with dog and gun waits until his dog finds a bird. Then the dog waits until the man is ready to flush. Up goes the bird and falls, never to rise again. It drops, the prey of a heartless hunter, to be picked up and eaten or sold. It is more fun to hunt a week with a camera than to hunt a month with dog and gun. You can get your camera ready and sit watching and waiting for your game, while with RECREATION in your hands you may study the nature of your bird as others have found it, compare it with your observation and go home a wiser and happier man.

G. V. McAllister, So. Danby, N. Y.

ANOTHER CHANCE TO WIN A PRIZE.

Amateur photographers should remember that my 7th annual competition remains open until November 30th. The closing date was made 2 months later this year than heretofore in order to give all amateurs a chance to compete. Thousands of busy men do not take their annual vacations until October or November. Then they go into the woods with gun, rod and camera. It was with a view to giving such people a chance to enter the competition that the open season was prolonged. There are frequently fine days in October and November when good pictures may be taken. The leaves fall by that time and better light may be obtained in the forests. It is possible to get many more pictures of live birds and animals, especially by bait, in the autumn than in summer, and I trust this new arrangement may result in many fine pictures being entered in the 1902 competition.

WASH THOROUGHLY AT FIRST.

About a month after developing them I put some negatives, insufficiently washed at first, into a second wash. In a short time the film left the glass. What was the cause of this, and what will prevent it? What will blacken a camera which has turned red?

Chas. Boehler, Camden, N. Y.

ANSWER.

It is a not unusual occurrence. You should do the washing immediately after fixing. If well washed then the film will not leave the glass should you later desire to wet it.

When the film leaves a plate you can save it, if clean, by flowing a clear glass with albumen solution, drying it and dipping it under the film as it floats in water, carefully smoothing the film down on the glass. Albumen solution is white of one egg shaken well in 8 ounces of water.

SNAP SHOTS.

Regarding E. W. N. spotting medium, my experience is precisely similar to that of a writer in March RECREATION. The stuff does not work. I wrote Newcomb; got flooded with advertising matter about it, but got no explanation that made it work.

James A. Cruikshank, Brooklyn, N. Y.

Every photographic process requires, for its successful completion, a modicum of knowledge and a trifle of skill. In the "flood of advertising matter" which Mr. Cruikshank received he must have seen the statement that I refund money without investigation or question on receipt of returned goods. To me, as to other men, time is money. I can not afford to throw in an extended correspondence course in photography with a bottle of spotting medium at 50 cents.

Edward W. Newcomb.

How can I prevent prints from sticking to the ferrotype plate?

A. H. Harlow, East Sumner, Me.

ANSWER.

Wash and polish your plates after each use. A little alcohol or benzine does the work. Then, for collodion prints, put 2 drops of the following waxing solution on each plate and rub with a woolen cloth or pad until only a faint film is spread evenly over the surface.

Yellow beeswax, shaved..2 drams or ¼ oz.
Benzoli.....1 ounce.

Shake till wax is dissolved or nearly so. Then add:

Ether.....1 ounce.
Alcohol.....1 ounce.

—EDITOR.

In June RECREATION G. W. Damon advises those who must print at night with a kerosene lamp to use bromide paper. He adds that Velox, Dekko and Cyko will not do. Has he ever tried Velox by kerosene lamp light? He either has not or else he gets a different result from what I do. I can not tell him just how far from the light his frame must be, for I do not know the intensity of his light or the density of the negatives; I do know that fine Velox prints can be made by the light of a kerosene lamp. I use a lamp and prefer it to daylight. I am saying nothin against bromide paper and its use, but I think many who do not use Velox paper would find it just what they are looking for.

W., Felchville, Vt.

Retouching varnish may be made by dissolving ½ ounce powdered rosin in 8 ounces turpentine. Rub it over the film side of the plate. A hard lead pencil will then take on the surface.

Very light places, such as windows in interiors, may be kept back by touching the light portions as they first appear with a tuft of cotton wet in a 10 per cent solution of bromide.

Bicarbonate of soda and chloride of gold make a good toning bath, giving brown tones. A toning bath strong in borax gives a purple tone. Sal soda gives red and cherry tones.

E. T. Caldwell, Pawling, N. Y.

Will you kindly tell me the formula for making blue prints?

Harry W. Solomons, Jersey City, N. J.

ANSWER.

You will find the following formula satisfactory:

No. 1—Citrate of iron and ammonia, 1⅞ ounces; water, 8 ounces.

No. 2—Ferricyanide of potassium, 1¼ ounces; water, 8 ounces.

Mix equal parts of No. 1 and No. 2 and apply with a brush or by floating for 3 minutes. Hang up to dry in darkened room.—EDITOR.

Where one has a permanent dark room, is it advisable to use Eastman's developing powders to develop Eastman's or Seed's plates? Will the same successfully develop iso plates?

Mrs. R. McAllister, South Danbury, N. Y.

ANSWER.

Eastman's powders work well and are convenient. You could save money by making your own developer in concentrated solutions ready to use, but otherwise would gain nothing. If you use pyro powders, they are good on either Eastman or Seed plates.—EDITOR.

I see H. G. Gosney thinks his photo of a woodcock and eggs should have been given a higher place on the prize list. I think the judges made the awards correctly and I will back them up. Though the woodcock picture is a rare and valuable one, it would have been much better if the camera had been lower, so the picture would show only a few of the eggs in the nest. As it is, the effect is somewhat like looking down a well.

L. D. Lindsley, Seattle, Wash.

How long an exposure should be made when a ray screen is used?

H. Marrott, Vernon, Ia.

ANSWER.

1-10, 1-4, 1-2, to 1-1 or more, according to depth of tint of the screen.—EDITOR.

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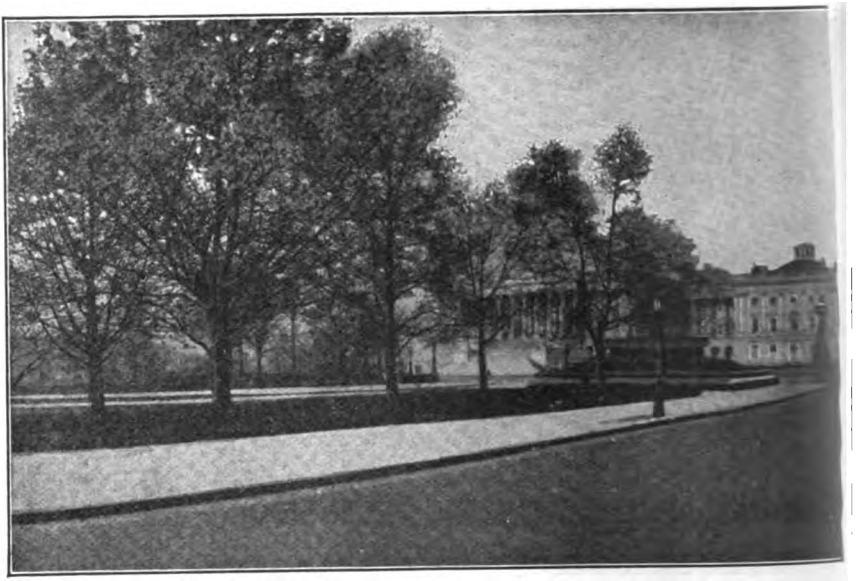

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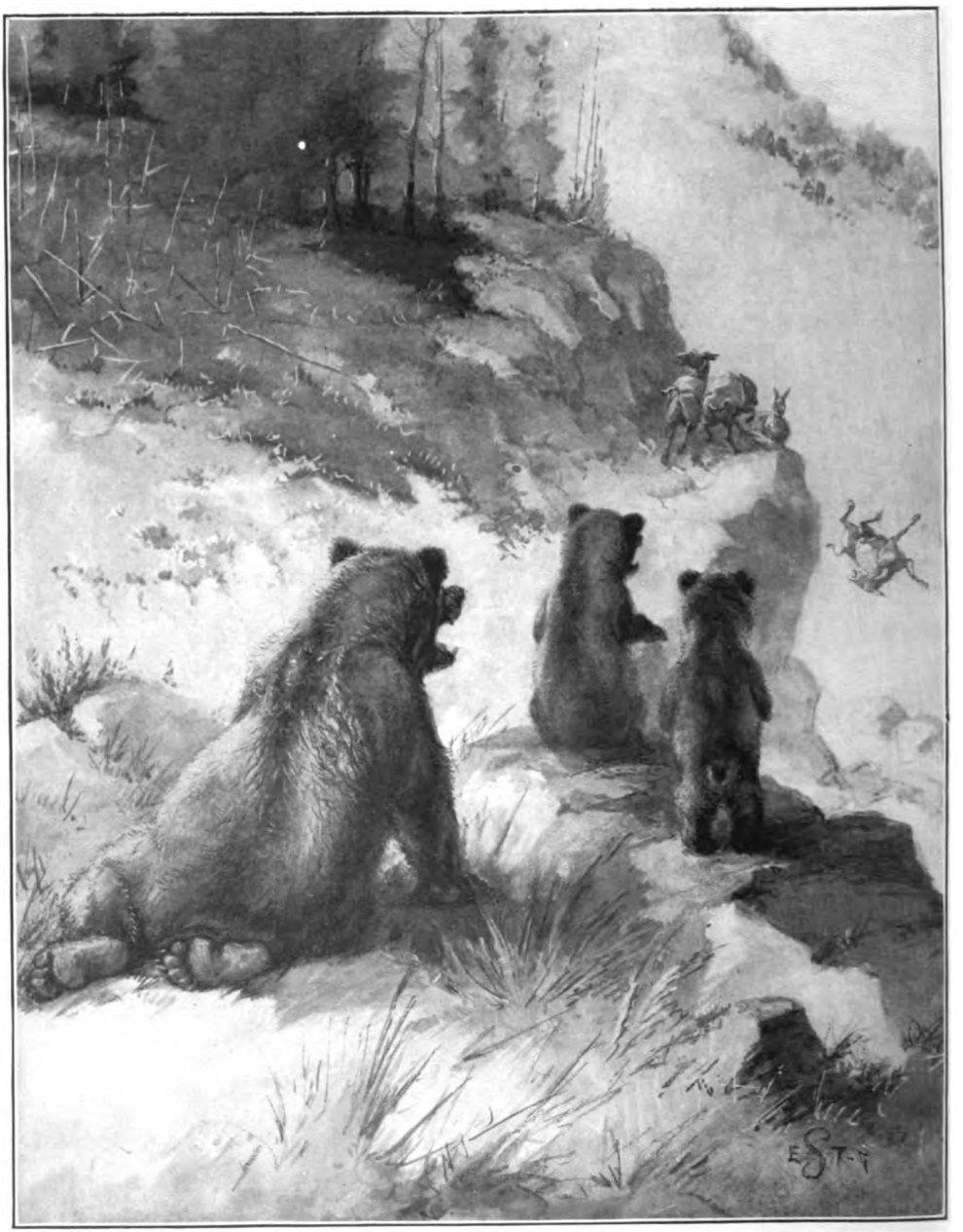

WE STAMPEDED THEIR PACK OUTFITS.

RECREATION

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G. O. SHIELDS (COQUINA,) Editor and Manager

THE LIFE STORY OF A GRIZZLY.

H. N. BEECHER.

Many years ago, over near Alma, Colorado, where the wagon road crosses Hoosier pass, we had a lovely home, and our cub life was a happy one. In those days there was no Alma nor other mining camp, and Hoosier pass had not yet come to pass. We had nothing to do but romp all day in the sunshine, eat berries along the mountain streams, or feast on trout, deer or antelope as we might wish, free from care and fear. Our days chased one another into weeks, the weeks glided into months, and a year came as peacefully as the little stream creeping down the mountain side.

The little mountain stream does not stay little, and it does not always creep, for down at the other end of the trail there is a mighty river. Only a few miners came at first, some in wagons, others on horseback, and a few on foot, leading burros with pack outfits. Then came the big freight teams, 4's, 6's and 8's, with their wagons and trail wagons, big loads of mining machinery and all kinds of merchandise, for they had found gold in our home and we had to move.

Just a little back into the hills we went at first, but still they came. They carried rifles, and some were after bears; for we stampeded the pack outfits, and the stupid burros would not go over our trails. After we had stampeded a few pack trains and dumped a few thousand dollars' worth of truck down the gulches, they got after us so hot we had to move again.

That time father, mother, brothers and sisters, with a lot of uncles, aunts and cousins, said good-bye to the good old times and trailed over on Black mountain. There the ranchmen and cattlemen complained because we killed a steer for breakfast or picked a young colt when berries were scarce. It kept us busy to get a living and save our hides.

When I was not much more than a 2-year-old they caught Mother in a big steel trap. Oh! it was terrible! The impression it made on my mind is there yet, and has saved me from a like fate; for while yet in the awful trap Mother remembered us and warned us about traps, showing us how she had been caught. Then we went to find Father, but before he could get there they had shot Mother and taken her away. Then and there I dropped my little cub heart, and in its place came something I can not describe. The sun did not seem to shine, the ripest berries did not taste good, the water at the best springs seemed muddy.

The days went on into weeks and the weeks into months, but the years did not come peacefully any more, and they came faster. The little mountain stream was becoming a mighty river. All those years I was growing bigger and stronger and uglier, and was hunting for something; I could not have told, myself, what it was, but I knew when it came. One day that Something was out hunting bear! I killed him. Whether it was the one who had trapped Mother I could not tell. It was a

I HAD JUST KILLED A NICE CRITTER FOR ARCH HALL.

From *bas relief* in clay by H. M. Shrady.

man and I was happy; though it was the beginning of more trouble, for after that they hunted us high and low till Pike shot my Father and one brother. He was after me, for I had killed Radcliff. They knew me by my big track, for I was the biggest silvertip on the range; but the trail I climbed was too steep for them. A few years later Whort shot my aunt and a cousin on Cover mountain. Five more of us sprang steel traps at the Stirrup ranch, and they hunted us so hard it kept us trailing back and forth from Black mountain to Poncha. We soon got tired of that and moved again, that time over on Burroughs' mountain. For a while we had an easy time again, for 2-legged critters were scarce in that part of the mountain in those days. Only a man named Burroughs built a cabin on top, where feed was good, and drove in a bunch of cattle. What a picnic for us! He was no hunter. He soon gave it up and drove his cattle down again, leaving us in possession. We missed his cattle at first, but soon made trails down to Arch Hall's ranch, then over to his brother Jim's, and at last down to Dan's. It was a little farther to go for breakfast, but we didn't mind that if we could live in peace on the mountain. It began to look as if we might. The sun began to shine again, the water seemed clearer in the springs, and life was becoming a pleasure once more.

Alas! One day in the fall, as I was going down by the old cabin for water, I heard voices in the timber down the trail we had made to Dan Hall's. I was not long in getting to high ground and out of sight. Soon I saw them, as they came out in the little park just below the cabin. One of Dan's old bronchos was carrying Preacher Harris, and on a spotted Indian pony was Coyote Bill. The preacher was spending his vacation at Dan Hall's ranch, and Bill had taken him for a ride in the hills. Perhaps Bill was telling what he knew about coyotes and did not know about bears, for they would not have known I was in the country if it had not been for that spotted Indian pony! I had been careful not to leave any tracks in the mud by the springs, and I had kept off the regular trail where they usually came, if they came at all to the cabin; but one can never tell which way a preacher is coming from.

They stopped at the first water and got a drink. Brother Harris commented on the fine water and wished he had as good in Canon City. Then Bill took a drink and, looking around the little parks and bunches of quaking asp, he said,

"It looks like a mighty good deer country."

They got on their horses and rode slowly toward the cabin, right across my trail. Then that cussed little spotted Indian pony put her white nose down in the grass and snorted! Bill was out of his saddle in no time, exclaiming,

"When Dell snorts like that it means bear or mountain lion!"

Then he got down on his hands and knees in the grass, looked close and said,

"Bear, by ——"

I guess he was going to say "by thunder," or something of that sort, but he thought of the preacher and quit.

I led them a merry chase all that afternoon, but they were not smart enough for old Mose.

About that time cattle came up in price and the ranchmen complained more than ever. I had just killed a nice critter for Arch Hall, and that set 'em wild. They offered big rewards for bears. Arch set a trap by the carcass I killed, and I went around every night and sprang it for him. I knew how, and I warned the rest of our outfit to let the trap alone, but they only made sport of me. They said Mose was getting old and cranky; so I let 'em alone, and in about a week Arch had a fine young

silvertip in his trap. He took it down to Canon to show Bill and the rest of the boys.

The sight of that fine bear hide set Bill's hunting blood in motion. From that time on, as regularly as fall came, that spotted Indian pony and the brindle bulldog with a spike collar would be seen at some of the ranches around Burroughs' or Poncha mountains. Every time I saw the dog it made me ache to show him a thing or 2. I wanted a chance to prove that old Mose was not made of the same stuff they build coyotes of; and that if he ever braced up to me as he did around wolves and coyotes in a steel trap, I would teach an old dog new tricks and send him to the canine paradise over the bear-paw trail.

I had to calm myself, however, for Tiger always kept close to his master's heels; and I noticed, too, that the boys did not hunt alone, any more. They said they did not mind common black bears, but that when it came to old Mose and his country, company was not a bad thing to have along.

Troubles do not come singly in bear life any more than they do in human life. We faced a new danger; the new smokeless rifle! The old black powder guns were not so bad. Every time one of them went off it made a noise equal to a clap of thunder, and smoke enough for an ordinary storm cloud. We knew for miles around just where the shot came from and what to do; but when the Savage and the 30-30 started to do business it was "a wildcat with a different kind of tail." Just a little pop, like that of a tenderfoot's 22, and a little puff of smoke we could not tell from that of a cowboy's cigarette; but the work it did was a fright! I found a deer that had been shot with a Savage, and it was terrible. It has made me feel uneasy ever since.

The first time I ever heard of smokeless rifles was the year I had my closest call. We had been staying a few days at the head of Joe Hall's gulch, holding a kind of camp meeting in the rose-bulb patch on this side of Poncha. Our feed was good there, so we had given the cattle a rest and thought the men had given up hunting us; but no! One evening, late in the fall, along came that dodgasted little spotted Indian pony and another bronk, with the open box brand, from over on Wilson creek. That meant Whort. They asked Sid if there were any bears up the gulch. Sid said,

"Yes, you bet there are. Old Mose ran me out of there last spring, and I haven't been back since. Didn't have anything but my old '76 Winchester, and concluded I hadn't lost any b'ar. You can have 'em if you want 'em."

The next evening Whort, with his 30-30, and Bill, with the new Savage, struck out for Burroughs' mountain, expecting to find me at my old stamping ground. Not finding any signs of us there, they trailed along the side of the mountain nearly to the head of Joe's gulch and struck down the steep mountain side, right where we were holding services. I had barely time to get the sisters and children started up the other side and take the main trail myself to lead the hunters off. I knew they wouldn't bother the other tracks when once they had sight of mine; and so it was. They got so close to me once it made my old hair go straight up. I couldn't leave the trail, for the mountain was covered with fallen timber, and I wouldn't have stood any show at all in that. All I could do was to keep on down the trail till I reached the short grass, where they could not track me. I knew they expected me to keep on down the creek, but I didn't. I turned off to the left, and that night I killed a steer for Mrs. Hodges over on Cottonwood. Whort and Bill went back the next day and set their traps, but I did not return that fall.

The next year the little spotted Indian pony was corralled at Arch Hall's ranch, and Brown and old "Kodunk" took a hand in the game. They stopped at Gardner's, and Len gave them a big jaw steer for bait. They started out loaded with bait and bear traps till you would have thought there would not be a live bear within 100 miles of the layout; but they didn't cut much hay that trip! Old Kodunk drank all the whisky and then got lost on the range. They caught 2 eagles in their bear traps, and Brown and Bill carried a deer down to camp that had happened along the trail and met one of those new Savage bullets. I wasn't stopping bullets that fall, and had struck out for Black mountain again as soon as I saw the spotted pony.

The next year Whort bought the Stirrup ranch and moved all his traps on to Poncha. I took 3 rounds of his bait without springing a trap. Then I warned the few of our outfit that were left and we moved to the head of Long gulch, above Summerville's; all but one fool of a cub, who stayed behind to see if I was right about the traps. He found out, and Whort scored bear No. 4.

Dan Hall and Bob Foster opened target practice on one of us after we went to Long gulch. Dan wanted a rug, but he did not get it, for after they took the hide off it was so full of holes his wife nailed it up to the kitchen window for a fly screen.

The affair startled me a little, and I, then alone, trailed my weary old bones back over on the far side of Poncha, just above the Stirrup ranch, to my old den, near where I had killed Radcliff. It was an open winter, and I didn't hole up for good till after Christmas. Then I slept the sleep of the old and weary for 2 solid months.

In the spring the spotted pony
Rests within the old corrall.
In the spring old Mose still wishes
That same broncho was in ——

I am not much on poetry, and you wouldn't expect it from a bear; but these lines of Tennyson came to me early in March. It was the first day I had come out after my long nap, and I thought I would take a peep down at the Stirrup ranch, to see what was going on. There in the corrall, feeding at the big hay rick, was that same little spotted Indian pony! The next day they rode up the side of Poncha, toward my den, but the snow was so deep in places I knew they could not reach me that trip. Besides, they carried kodaks and were taking pictures. Whort pointed out the place where he was going to set his new bear traps and showed Bill where he caught the cub last fall. Then they went back to the ranch and took pictures of the cattle. The next day they drove back to Canon City; but they left the little spotted Indian pony!

I crawled wearily back into my den, but I did not stay long, for each day it got warmer, the sun shone brighter, little rugged points of rock crept up through the snow on Pike's peak and the Sangre, and down on the South hill side, below in the quaking asp groves, little bunches of dry grass beckoned spring to hurry. Then I lay all day in the sunshine at the door of my den and thought, for animals do think. I wondered how it would be with old Mose when these old bones should lie bleaching in the sun on Poncha mountain and this big, shaggy old coat of mine, all tipped with silver, should adorn Whort's den at the Stirrup ranch.

Is there a Heaven for bears?

I heard Coyote Bill tell the boys around the camp fire, one night, that dogs went to Heaven, and that old Tiger was going there. He said they had a little corner off by themselves, away from the main push, where they chased jack rabbits and coyotes over the green hill side and didn't get cactus in their paws.

If dogs, why not bears?

I wonder what it will be like? Will Mother be there? Will the sun shine as bright and the streams be as clear and the berries be as thick and the deer and antelope as plentiful as they were in my cub days back at the foot of Hoosier pass, before the hand of man turned our earthly heaven into hell? Who knows?

Then I look down over the big snow bank below my den, across the big timber and the wonderful pile of rocks where Nature once built a big temple and tipped it over just to see it fall; farther down on the little flat, where the cedars and soap weed grow; down over the calf pasture and past the big feeding corralls; still farther down to the beautiful meadow in the valley below, and what do I see? Just a little spotted Indian pony running with the bunch of Stirrup cow ponies; and I know they are coming back!

It may be in a few days or it may be weeks, but they are coming. They will bring the Savage and the 30-30, and life will again be a burden to poor old Mose.

Well, it doesn't matter much. I have lived about long enough. Every bone in my body aches, day and night. I have been driven from hill to hill and from cave to cave for many years. My parents, my brothers and my sisters have been killed, and I am left alone in my old age.

I am no longer active and powerful as I once was. I can not make the great leaps, nor strike the terrific blows necessary to kill a big steer. My teeth are broken so it is difficult for me to eat a steer, even if I could kill it. I am therefore reduced to a diet of roots, grubs or carrion. I have outlived the days of my strength, my prowess and my cunning; so, come to think it all over, I don't care how soon some fellow puts one of those Savage bullets into me.

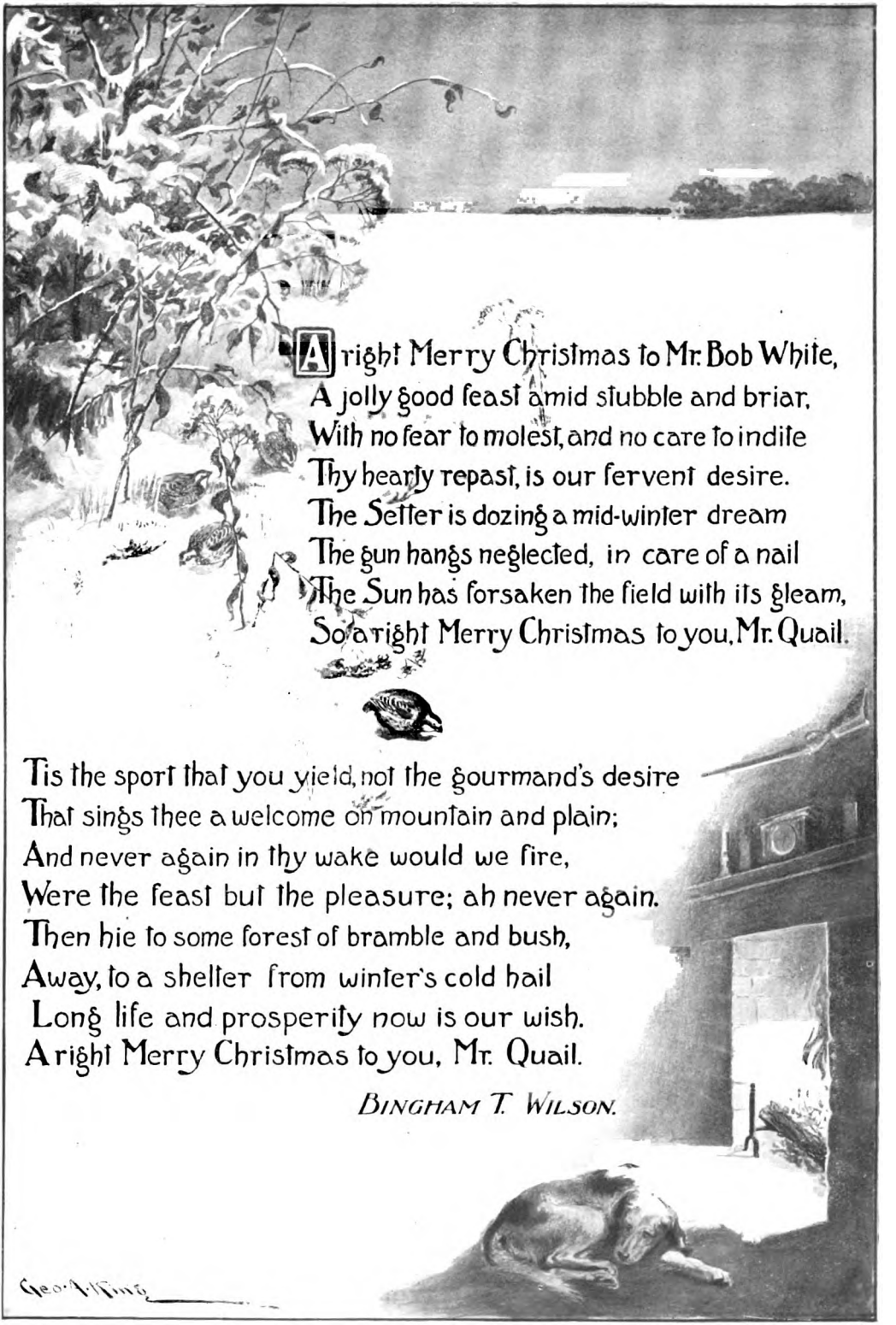
* * * * * * *

A prospector who was working on the mountain, a year later, found a skull and a few of the other large bones of a big silvertip, evidently a very old bear, just in front of the cave where old Mose hung out. The teeth were worn away and there were several enlargements about the joints, such as result from rheumatism. No doubt those were the bones of old Mose.

Thus the king of Battle mountain had at last passed in his checks, and none of his kind is left to mourn his departure.

"We had a delightful time last week," said the city cousin, who was describing the joys of metropolitan life. "One evening we trolleyed out to a suburban home and ping-ponged until nearly midnight, and next day we automobiled to the country and golfed until dark."

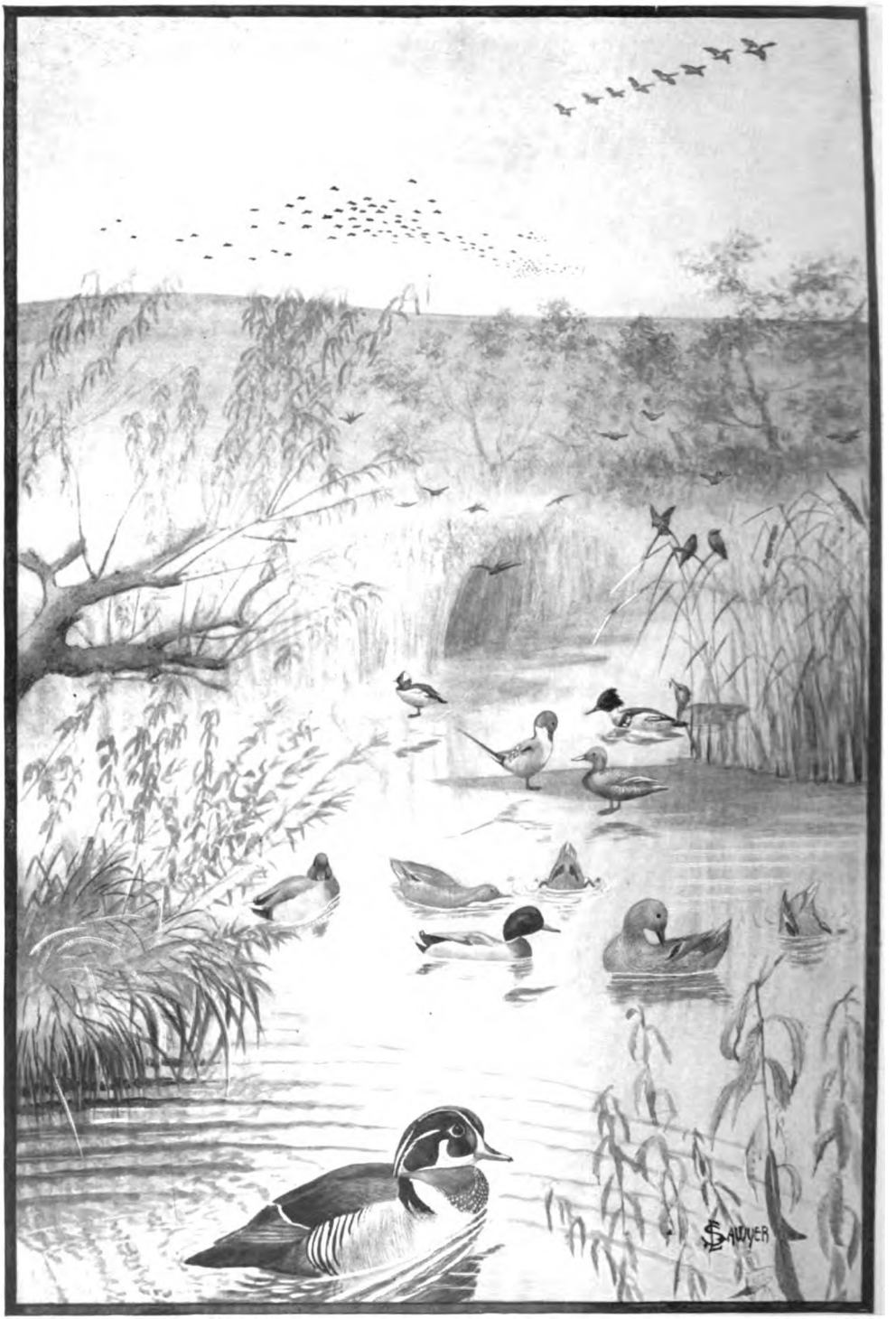
"Well, we had a pretty good time last week, too," ventured the country cousin, with a sarcastic smile. "One day we buggied over to Uncle Josiah's, and we boys got out in the back lot and baseballed all the afternoon, and after we had dinnered, some of the men cidered and tobaccoed a while."—Baltimore American.



A right Merry Christmas to Mr. Bob White,
A jolly good feast amid stubble and briar.
With no fear to molest, and no care to indite
Thy hearty repast, is our fervent desire.
The Setter is dozing a mid-winter dream
The gun hangs neglected, in care of a nail
The Sun has forsaken the field with its gleam,
So a right Merry Christmas to you, Mr. Quail.

Tis the sport that you yield, not the gourmand's desire
That sings thee a welcome on mountain and plain;
And never again in thy wake would we fire,
Were the feast but the pleasure; ah never again.
Then hie to some forest of bramble and bush,
Away, to a shelter from winter's cold hail
Long life and prosperity now is our wish.
A right Merry Christmas to you, Mr. Quail.

Bingham T. Wilson.



THE BIRDS SEEM TO CENTER HERE FROM ALL OVER THE CONTINENT.

FIRESIDE MEMORIES.

J. H. MACKAY, M. D.

I have just laid away the latest copy of RECREATION, and the stories I have been reading in it have set my mind wandering backward. As I sit here by my winter fireside, puffing my cigar and looking about the room, my eyes light on a case of mounted birds that I have collected in the marshes and along the rivers hereabout.

As the winter wind howls without; as the snow banks up on the lee side of the house; as the little pellets of sleet patter on the window panes, marring the fantastic frost pictures that Jack had already painted there, my imagination follows the flight of many another bird I saw on the marsh when collecting these, and that I did not disturb. I wanted only certain species, more especially game birds, with a few of their neighbors.

There were hundreds, yes thousands of birds; and if I had been as eager to shed blood and as thoughtless and reckless in my love of slaughter as many men are, I could have killed hundreds of them during the hours I sat within my blind, or tramped about the sloughs and along the river.

THE BEAUTIFUL WOOD DUCK WITH PLUMAGE RIVALING THAT OF THE PEACOCK.

It is a strange quality of mind which so many men and boys possess, inherited perhaps, from our savage ancestors, and which so many of us have not attempted to curb or refine in any way. I might almost say that the average man or the average boy values a bird only when it is dead; that he considers it a misfortune that so many birds or animals should escape the hails of lead sent after them. Not that these men or boys need these wild creatures. That is a small part of the impulse to kill; but these thoughtless, reckless men think it great fun to see the feathers fly from a bird when the gun cracks; to see the limp and mangled body fall to the ground; to rush out, gather in the bird and chuckle over its untimely taking off.

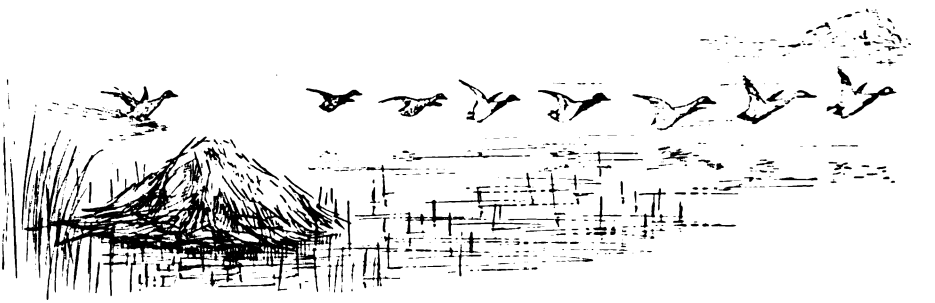
Why can not all men and all boys realize that a bird is only valuable while it lives; that when dead its beauty fades and its interest to the world at large ceases? Why do we not all learn to hunt with a camera instead of a gun? Why do we not learn to find satisfaction in the study of the habits of the birds? To admire the grace, the beauty, the swiftness of the bird in flight?

Birds rarely fly far at any one time if let alone. If you flush one, or a dozen, or a hundred of them, they are likely to circle about you, perhaps to move away 100, 200, or 500 yards, and settle down again within sight and within easy walking distance. Why not observe their movements as they go? Why not follow them, crawl in behind a clump of willows or a sand hill, a tree or a rock, and see what they do in their new quarters?

If you will try a day of this kind

of hunting you will enjoy it 10 times as much as you ever enjoyed a day's shooting in your life, and you will go home at night with the delightful consciousness that you have left the birds for other people to

days; of the hush and repose of the waters; of the gorgeous colors of plant and shrub; of the reddened sky at sunset, and the afterglow which painted the heaven far into the gathering twilight.



AND SETTLE DOWN AGAIN WITHIN EASY WALKING DISTANCE.

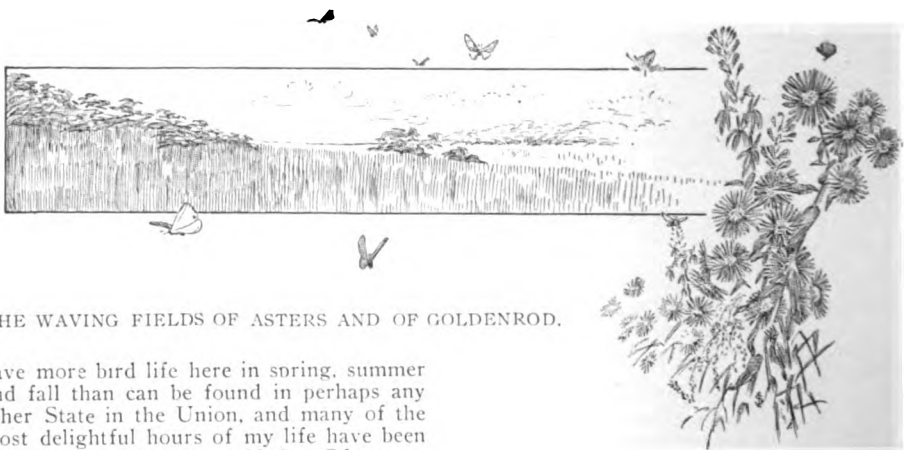
study and to enjoy. Remember, there are thousands of men, women and boys in the United States who never fire a gun, and who never care to do so; yet there is scarcely one of them who does not love and admire birds, to a greater or less extent. Why not consider the interests and the desires of these hosts of people?

The birds seem to center here in Nebraska, from all over the continent. We have more bird life here in spring, summer and fall than can be found in perhaps any other State in the Union, and many of the most delightful hours of my life have been spent in watching these birds. Of course I have killed some of them, but have never wasted any.

I have found great delight in mounting some of the best specimens I have killed, and afterward in looking over these birds and in recalling the scenes amid which I found them. If I had not saved some of these specimens, I should not have enjoyed the delightful recollections that now come to me, of the hazy, shimmering autumn

Without these mute reminders I could scarcely have recalled to-night the magnificent plumage of the cardinal, the oriole, the robin, the meadow lark or the wood duck.

I could scarcely have recalled the waving fields of asters, and of goldenrod. I could scarcely have heard, as I now seem to hear, the rustle of the dying flags and rushes that bordered the sloughs and lakes.



THE WAVING FIELDS OF ASTERS AND OF GOLDENROD.

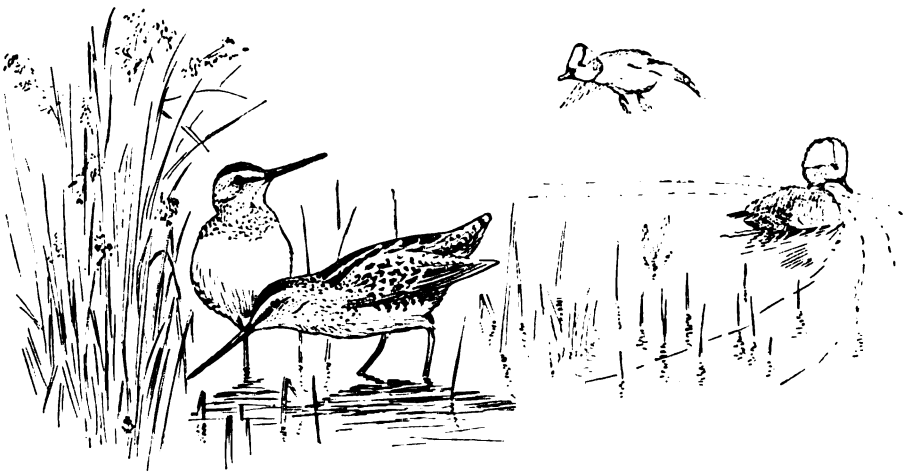
I might have forgotten the gorgeous and erratic butterflies that lingered into the autumn when I was collecting these birds.

I might have forgotten the cohorts of ducks and geese and gulls that circled and doubled over my head repeatedly, before settling into the water.

I might have forgotten the grateful and exhilarating chatter of these birds after

finding a refuge where they could camp for the night, without being bombarded by shot guns from every clump of brush.

I might have forgotten the frequent



IN SEARCH OF A PLACE TO SPEND THE NIGHT.

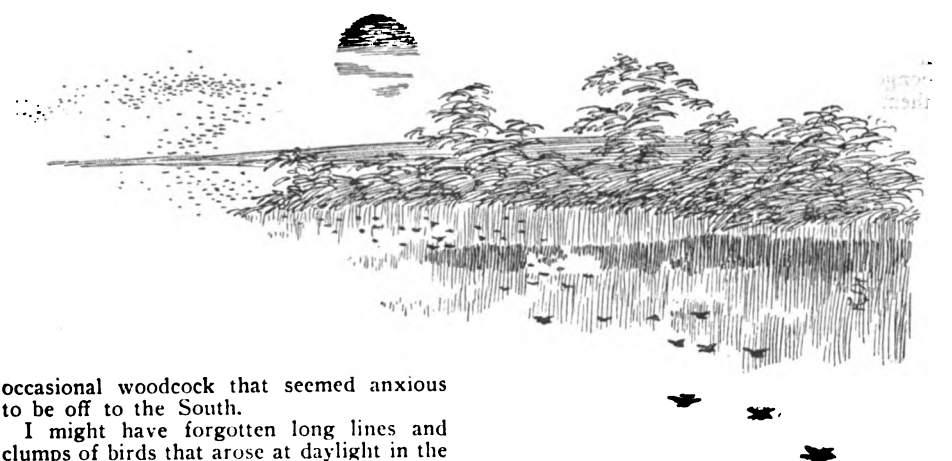
"scaip" of the jacksnipe, as he changed from one part of the marsh to another in search of a suitable place to spend the night.

I might have forgotten the whistle of an occasional woodcock that seemed anxious to be off to the South.

I might have forgotten long lines and clumps of birds that arose at daylight in the morning and headed for the sunny South, realizing that the winds had grown too chill for them in this Northern region.

But the silent watchers on the mantel and on various brackets about the room, recall all these things as the winds howl over the prairie to-night.

Especially vivid are the recollections of one October afternoon beside the Platte. Before my eyes there arises a moving picture of filtering morass, of gurgling water, of green hillocks, of tiny ponds, reflecting the warm sunbeams; of watercress swaying in the current of a tributary brook; of rushes sheltered and banked with thickets of willows, sumac and wild plum bushes; of the bright plumage of moving birds



HEADED FOR THE SUNNY SOUTH.

mingled with the many hues of the foliage, the brown, waving prairie grass and of late blooming flowers.

The notes of the purple grackle, the bobolink and the meadow lark, the clatter of

ducks, all come to me as clearly as they did on that balmy autumn day, and they help to soften the austerity of these winter nights.

Again I can hear the swish of wings, the rippling of water, the farewell message of the elusive jacksnipe.

Again I see the beautiful wood duck, with plumage rivaling that of the peacock, floating on the shimmering water.

Again I note the graceful curves of the hooded merganser, seeking the juicy mollusk, algæ and belated adpoles.

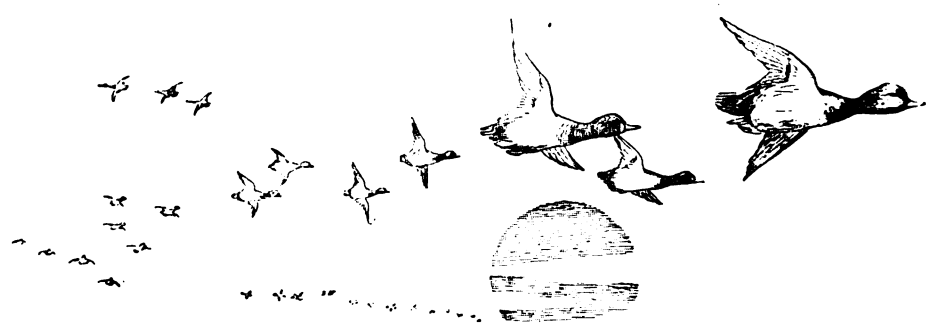
A buffle-head, strayed from the running water of the river, takes a peep at his congeners of the marsh, paddles in among them a few minutes; then rises and returns to the big river where he evidently feels more at home.

BACK IN THE THICKET THE GROSBEAK WHISTLES ITS WEIRD NOTES.

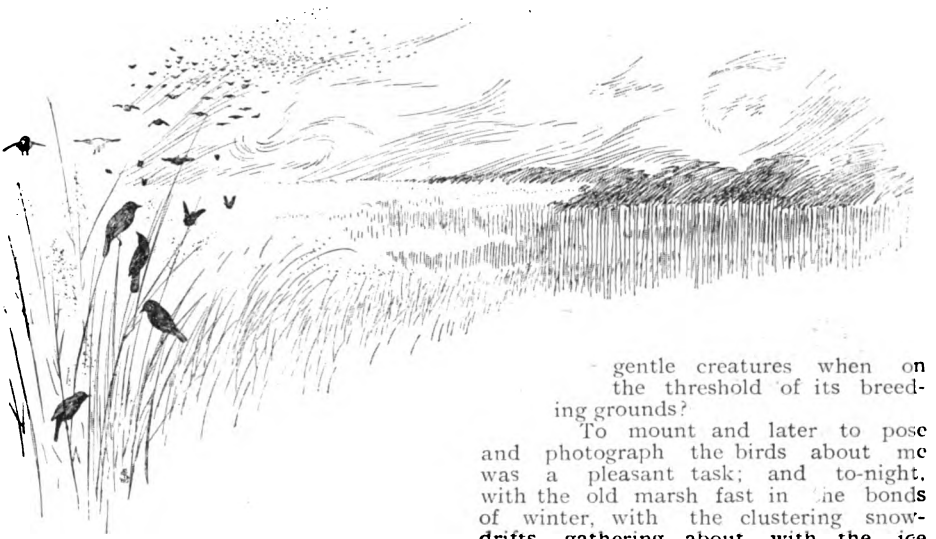
Back in the thicket the grosbeak whistles its weird notes. The thirsty quail seeks the water and drinks daintily. A flock of crow blackbirds and a few purple grackles pipe their distorted and discordant notes from among the rushes. The ripeness and satiety of nature cast a spell on all its creatures and they revel in the sun and in the music. The chorus of frogs, the babbling and chattering and screaming of birds of many kinds, make nature seem jubilant.

Austere nature, with a sense of the duty of ripened maturity and repletion, awaits the gathering of its treasures into its storehouse, without a protest. The birds have a resigned and solemn air and a lazy note. They have lived out the day of their usefulness here in the North. Parents have reared their young to maturity and strength, and all are, so to speak, folding their tents for their Southern journey.

Those of this mighty throng which escaped the fusillade of firearms *en route* South are again in their winter quarters and will return to us next spring, cooing and mating, seeking suitable places for the building of their tiny houses and for the rearing of other broods of young. Their songs will be far more vigorous and cheer-



THE SWISH OF WINGS.



THE FILTERING MORASS OF GURGLING WATER.

ful then than now, for they will be tempered with love and with paternal sentiment. The singers will be intent on working again the miracle of nature. Who could be so base as to outrage the plan of the Creator by destroying one of these gentle creatures when on the threshold of its breeding grounds?

To mount and later to pose and photograph the birds about me was a pleasant task; and to-night, with the old marsh fast in the bonds of winter, with the clustering snowdrifts gathering about, with the ice bridging pond, lake and river for months to come, I sit dozing by the fire, and in fancy live over again the delightful days spent with rod, and gun, and camera. Yonder on the rug sleeps my gentle setter. Perchance he too is dreaming of the joy we had afield in autumn days gone by.

THE THIRSTY QUAIL SEEKS THE WATER.

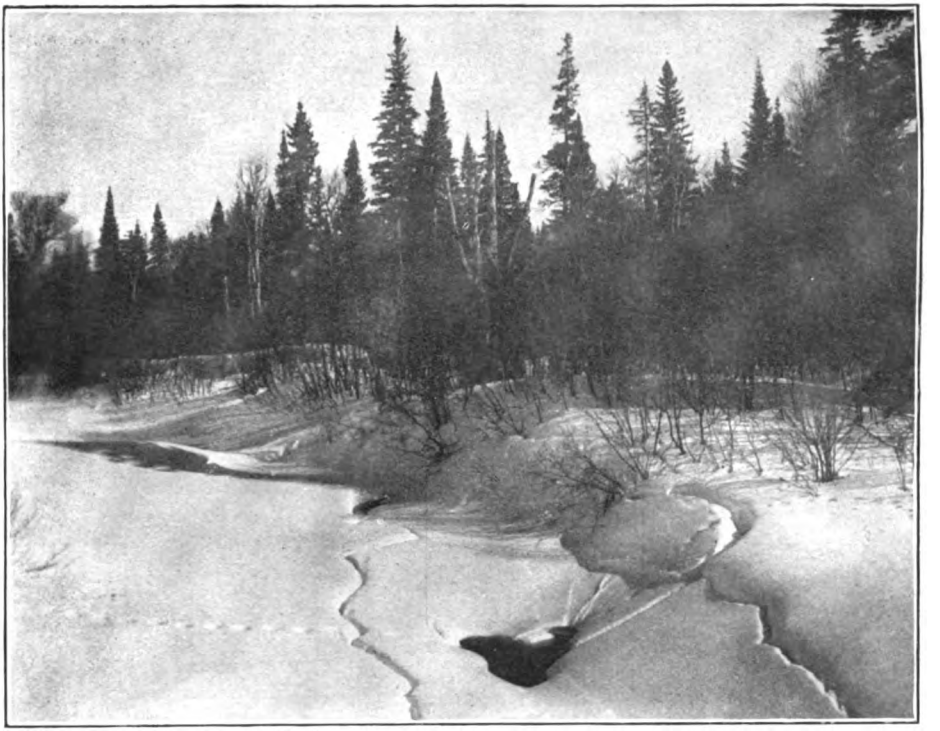
WINTER IN THE MAINE WOODS.

A CAMERA POEM.

Amateur Photos by H. E. Janes.

A TOTE ROAD.

A TROUT BROOK IN CLOSE SEASON.



ON THE TRAIL OF SIR REYNARD.

LOOKING FOR SIGNS.

DEEP IN THE FROZEN FOREST.

TIRED.

POSING AN UNWILLING SUBJECT.

A CAMERA SHOT AT SHORT RANGE.

STUDYING A STRANGE FIND.

DECEMBER IN THE WOODS.

DWIGHT E. SMITH.

Bleak is the forest, still and chill.
Cold, gleaming, desolate lies the snow
Upon the hills. Night now draws near.
Far in the West, below the fleecy clouds,
The burning sun goes down. The Western sky,
A moment flushed with red, grows white as steel,
Cold, bitter cold, and dead, and deathly still.
The forest dark and grim, with towering trees,
Stands out against the moonlit, glittering snow.
The treetops, black and bare and motionless,
Are traced upon the sky like lacework fine.
The trunks below, in vistas long and gray,
Stretch out toward other vistas: all is still.
Stern silence passes through beneath the trees
And leaves no trace behind. All things are dead.
Here nothing lives. The distant, gleaming stars,
So coldly glittering in a sky of steel,
Gaze down upon the forest and the snow.
The moon floats by; her chill and cheerless light,
Vague and uncertain, hovers over all,
And all is dead and desolate and drear,
And desolate and dead and drear—and drear!

"They caught a man robbing the public library till in a New England town."

"How did they punish him?"

"Made him read all the historical novels."—Cleveland Plain Dealer.

A DAY WITH MUSKALONGE IN CANADA.

DR. GEO. M'ALEER.

Morning came. Dog days had not run their course. The sun cast up red like a ball of fire. Not a breath of air stirred to temper the torrid heat. Swallows flitted lazily about, and the sibilant song of locusts fell drowsily on the ear. Tiny, fleecy clouds on the horizon gave promise of showers during the day.

During the early hours of the forenoon I repaired to tne home of old Brissette, on the bank of Pike river, which flows into that portion of Lake Champlain known as Missisquoi bay, near the village of Bedford, Quebec. I was provided with a hamper of solids and liquids for the inner man, and a sufficient supply of paraphernalia to start a fishing tackle store. Brissette was awaiting me.

"*Bon jour, bon jour, mon cher ami;* we mek start rat off for quick."

Dipping his fingers into the *benitier,* which always has a conspicuous place in the home of the *habitant,* Brissette devoutedly made the sign of the cross; and with a wisn from his wife for our success and safe return we took our departure for the flat water of the river, some distance below his house.

On our way to the landing, near the deep pool where the rapids end, we passed through nooks and vistas in glade and mead that gladdened the eye; where nature in her seeming indifference and drowsy neglect furnishes many artistic sights. The timid brown thrush is started by our intrusion and flits into the denser growth beyond, and the bobolink sings his joyous, rollicking notes in the meadow. All this seems lost on the matter-of-fact Brissette, the patient basket maker and successful angler; perhaps because it is a part of his everyday life.

At the landing the trolling rod of split bamboo is assembled, the multiplying reel is well secured in its place, the threadlike, silk waterproof enameled line is extended through the guides, and a latest pattern of trolling spoon is attached. Brissette scrutinized everything closely without saying a word, but it required only an indifferent mind-reader to see that he was not favorably impressed. As we took our places in the boat he said.

"Ver' nice, dat tings, ver' nice. He don't fool 'longe, plobly, don't he, hein?"

Feeling entirely confident of giving him a surprise I was content to make answer,

"Well, we'll see, Brissette, we'll see."

The oars were in the hands of a master. The boat moved as smoothly as a swan on the surface of the water. The speed was neither too fast nor too slow. Seventy-five yards of line were slowly paid out. Every nerve was tense, and anxiety waited on expectation. Slowly the mile was covered, but no pirate of the waters seized the tempting lure. My faith in the burnished gold and silver spoon weakened after going a few miles, and I asked Brissette to desist from rowing until I mounted a phantom minnow.

"Looks lak he no wants de jewelry mek on de State, hein?"

"Well, Brissette, your 'longe may not be so highly educated as ours, but all the same I think I shall yet tempt one."

"Plobly," answered Brissette, with deep skepticism.

I raised and lowered the tip of the rod, describing the tangents of a circle, but all to no purpose. We covered 5 miles without a rise or a sign. I discarded my phantom minnow for a St. Lawrence gang, and we covered more miles without encouragement or reward. At the turning point we neared a few spreading elms and I suggested to Brissette that we go ashore to eat our lunch.

Climbing the precipitous bank of the river we saw murky clouds rolling toward the zenith from the Western horizon. They were frequently intersected and illuminated by zigzag chains of lightning. It was evident that a heavy shower was not far off and we deemed it wise to seek the shelter of an outlying barn some distance away. We had just begun to dispose of our refreshments, seated on mounds of sweet scented, newly gathered hay, when great rain drops beat a restful tattoo on the roof. The wind grew in intensity and volume and soon we were in the midst of a blinding summer shower, punctuated by the flash and roar of the artillery of the clouds. The face of nature was thoroughly washed, and after the passing of the shower, vegetation appeared an intenser green.

Luncheon was leisurely disposed of, together with something of a liquid nature, which had a happy effect, when Brissette broke in with,

"Bah gosh! ah'll tole ho' hwomans we go for get big 'longe; for big tam. We'll fin' big tam for sure!"

"Yes, but we haven't got our big 'longe yet."

"*Certainement! Certainement!* Des 'longe he no lak for to heat de jewelry tings. He lak it de chub bettaire."

"Well, Brissette, I don't know but you are more than half right. If you will rig up a chub for me your way, we'll try our luck with him."

"*Non, non, mon cher ami!* Brissette mak' it de boat go long sof' and easy lak. He no feesh. *Nous ne comprenons pas* for mak dat wheel machine go on dat leetly feedle steeck."

"Oh! You may row the boat just the same and I will use the rod and reel. I only want you to get the chub and put him on the hook for me your way."

"I no lak it dat way, me. I go on de store for melasses and de docteur he come and he say, 'Brissette, I go for 'longe las' week. I don't get one. For how you feex it de bait on de hook for catch him?' De ministaire he say, 'Brissette, for how you coax de 'longe? I feesh, one, 2, 3 tam, and don't see 'longe at all.' De Heenglishmans in village he ver' smart; he know every tings. He say, 'Brissette, we go feesh wid you some tam, some day, noder day.' Brissette no keep it de school; Brissette he no go!"

"Very well, Brissette, I will adopt your method. You rig up a bait your way, and on our way back I will do just as you direct."

"Rain look mos' gon' by. I go on de brook for 10, 15 minutes; den you come on de boat."

The time had passed, the rain had ceased, the air was refreshed and agreeably tempered. Meeting at the boat by appointment, Brissette exhibited a chub at least 10 inches long, which he had caught in the brook, and which he said was to be my bait.

"Great Scott! Brissette, you don't mean it! Why that fish is almost large enough to carry home to stuff and bake. It will frighten any 'longe out of his wits!"

"You for do my way, hein? Well, Brissette acquaint wid dese 'longe and he know what he lak' *pour manger* for him supper."

While engaged in this conversation, Brissette was mounting the chub. He peeled and sharpened a small sapling with which he made a perforation from the head along the backbone to the rear of the dorsal fin. Through this he passed a copper wire which he made thoroughly secure to a hook large enough and strong enough to hold a shark. He then withdrew the copper wire until the shank of the hook was drawn into the opening made by the sapling, and so concealed in the body of the fish. He next passed the point of the hook through the body midway between the dorsal fin and the tail and gave it a twist, or bend, which would cause the chub to revolve when drawn through the water. He then passed the free end of the wire twice through the lips, effectually closing the mouth so the bait would move through the water easily and without injury; and finally he connected it with the chain of swivels attached to the end of his line.

He cast the bait thus prepared several times into the water and drew it toward himself to see if it revolved properly while being drawn through the water. Everything being satisfactory, Brissette said,

"We now go for beeg 'longe; we get him for sure."

"Well, I am glad your courage is good, Brissette; but I can never get that big line of yours on my reel. What shall I do?"

"Hole' heem in your han's. When big 'longe eat him and run, let him go, pull heem in, let heem go some more; bimeby he get ver' tired."

"Yes, but how do you do when alone? You can't hold the line and row at the same time."

"Hol' line in mout'. When 'longe come, stop row, take hol' on line."

Diplomacy, persuasion, and importunity were brought to bear, and after a great deal of remonstrance and with evident misgiving on his part, he at last consented to let me use my rod, reel and line, on the strongest assurance of their strength and reliability, and that I would be neither displeased nor disappointed if I hooked and then lost the largest 'longe through my own inability or the breaking or failure of my tackle.

With this concession and understanding, we set out on our return trip. Obeying the instructions of Brissette I paid out only 25 or 30 yards of line. We carefully skirted the lily pads, giving special attention to the deep pools where the water had cut away the banks of the river, and to the darksome reaches of water beneath the overhanging growth of water brush and other foliage. Mile on mile we slowly covered, with expectation constantly keyed up to intensest pitch, but all to no purpose. We came in sight of the wide and deep pool at the place of our departure near the end of the rapids without any attack on our leviathan bait. Brissette's volubility had ceased and anxiety was depicted on his countenance. We were gently sweeping around the other side of the pool when I ventured to say,

"Well, Brissette, it begins to look doubtful if your prediction will be fulfilled today. The big 'longe don't seem to want to call on the big ch——"

"Hold on, Brissette, hold on! We've struck a snag!"

Whiz-izz-izz-zz-z went the reel. The fight was on, and we were launched at once into the storm center of exciting sport.

The mighty fish threw his weight on

the rod and it yielded to the strain in graceful ellipse. Away he went down stream, pulling the boat after him as if it was drawn by a stout pony. The strain was too great and he hurled himself defiantly out of the water, the embodiment of untamed fury and piscatorial ferocity.

"*Mon Dieu! Mon Dieu!* but he is de bigges' fader of dem all! Nex' tam he come he eat up your leetly string and feedle steeck and laf at Yankee man from State! Brissette mek him cool off and go 'long home wid him for sure."

"Just wait a little, Brissette, and see what the Yankee man and his fiddlestick will do. He'll cool him off all right."

Down to the bottom went the 'longe to sulk. A few gentle turns of the reel and like a flash out again came the tiger of the waters, shaking his head to free himself from the cruel barb; but the multiplying reel and the resiliency of the split bamboo rod gave him no slack line and consequently no chance to escape.

"*Sapristi,* but I nevaire see like dat before me! One leetly feedle string and one leetly feedle steeck mek hold mos' bigges' 'longe as ever was."

"Oh! I'll show you before I get through what the little fiddle string and the little fiddle stick will do."

Meanwhile his royal majesty made another drive away from the boat with great speed and power. To the resistance of the drag on the wheel I added the pressure of my thumb on the line, but he never ceased in his flight until he had taken out some 40 or 50 yards of line. He then started on a circuit of the pool, which I endeavored to check by giving him the butt of the rod and by reeling in whenever for a moment he desisted from pulling and tugging. Twice during the circuit he essayed the aerial act, but with less impetuosity and violence. It was easy to see that the severe strain of the rod was telling on his strength. He turned about and made another wild rush as if to pass underneath the boat, but reeling in quickly and putting pressure on the rod I frustrated his plan and prevented the line from getting entangled with the oars, as would otherwise probably have been the case. That seemed to infuriate him anew and again he essayed to leap out of the water as his only hope of escape; but he was unable to force more than his head and back above the surface of the water.

Alas! good fighter! Alas! mighty warrior! All danger is past and it is only a question of patience, care, and time before your royal sway is at an end.

The fight was fast and furious, permitting of no conversation nor idle banter. Brissette, while carefully managing the boat, did not for an instant cease to regard the, to him, unequal contest with an intensity of interest bordering on enthusiasm and amazement.

"Ah! Brissette," I ventured at last, "see the big fellow is getting tired. Now what do you think of the fiddle string and the little fiddle stick?"

"Bah gosh! feedle string and feedle steeck all right when Yankee man play de feedle. Bah gosh! I nevaire see like dat, me." This by way of compliment and praise, for your Frenchman is nothing if not polite and complimentary.

"Thank you, Brissette, but we haven't got him into the boat yet."

"For sure, our 'longe! I jomp in wataire and pull him on shore."

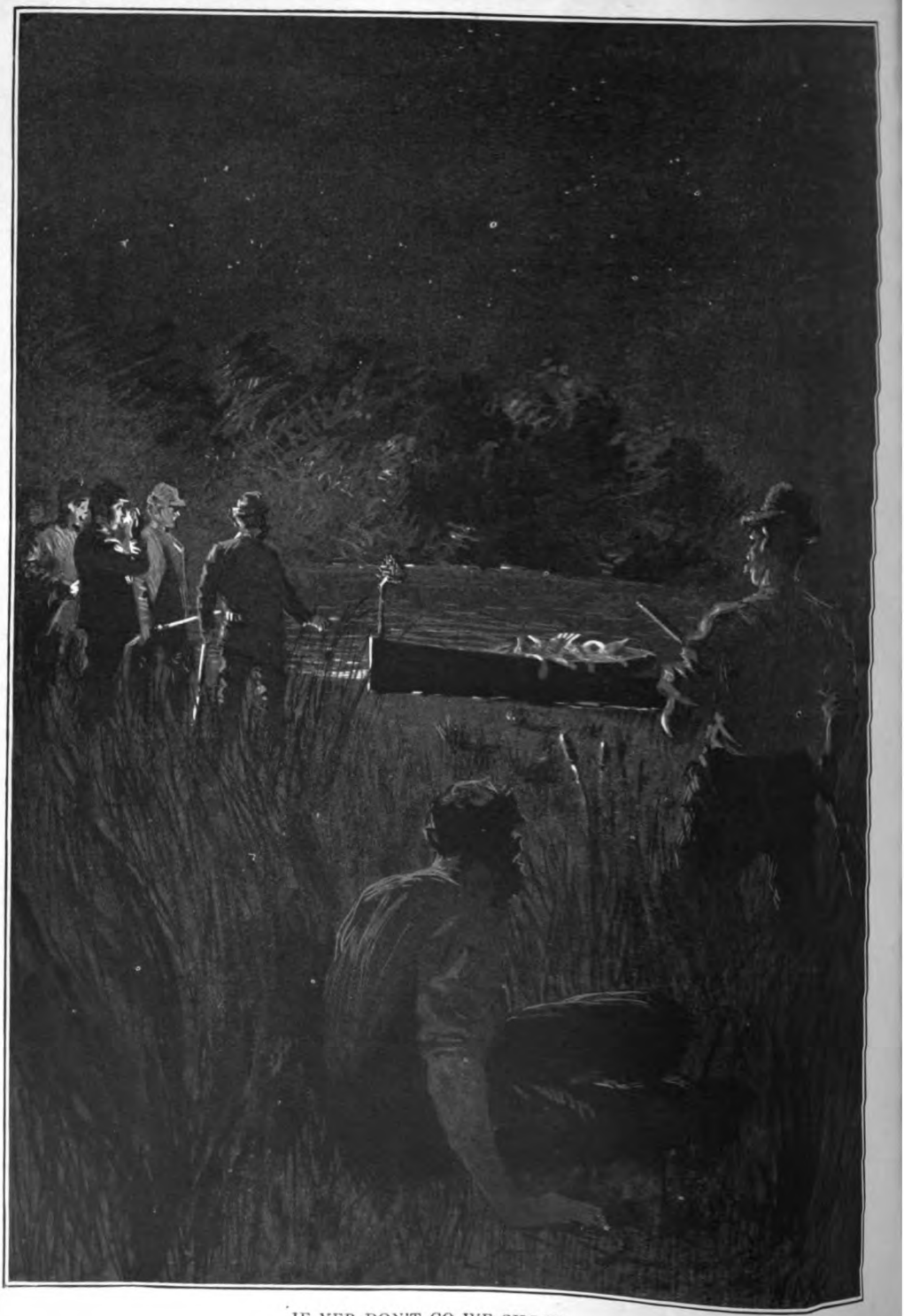
"Well, not just now, Brissette. He is cooling down all right, and when all the fight is out of him I will lead him around to the edge of the boat. Then you can slip your thumb and fingers into his gll's and lift him in."

Ten minutes more passed and the struggle was at an end. The fierce fighter could be led about as gently as a fingerling. I reeled in the line. As the 'longe neared the gunwhale the hand of Brissette laid firm hold on the gills and soon the monster was writhing on the bottom of the boat. A merciful blow at the base of the skull ended the struggle and Brissette pulled for the shore.

As the shadows of evening gathered, a proud procession moved through the village street, to the surprise and wonderment of passers by, who were generous with congratulations and praise. At last the village store was reached and the scale registered 28¼ pounds as the weight of our prize. I returned to my home with pleasant recollections, well content to have spent the day on Pike river with old Brissette.

Parke—I believe in letting my son see life, so the other day I took him through a gambling hell.

Lane—I did practically the same thing; I took mine across the water in an ocean steamer.



IF YER DON'T GO WE SHOOT.

FIRELIGHTING UNDER FIRE.

A. S. DOANE.

One evening late in March, the poacher's pardner stood in front of the camp, watching the Sound. He was a tall man, weighing 185 or 190 pounds, but so finely proportioned that he looked slight when contrasted with the poacher's shorter and more bulky figure. The pardner wore long rubber boots, an old pair of corduroys, patched with shot bag, a red sweater and an old shooting jacket. A tarpaulin hat and 3 weeks' whiskers completed his costume. His most striking characteristic was a missing left eye. The remaining eye was of a peculiarly chilly, steely blue. "You got a eye like a fish," the poacher had once told him.

There was not a breath of wind, not a ripple stirred the water. For once Sound and sedge were both quiet. The sun had gone and the last rays of twilight were fast disappearing.

"What you make of it?" said the poacher, as he joined him.

"I make nix," said his pardner. "Not a thing in sight except those swan," he added, as he pointed to a long streak of white, looking more like a vast bank of snow than wild fowl.

"Well," said the poacher slowly, "we kin make a night's work there."

"But we got no big shot," objected his pardner.

"Don't need any," said the old man shortly. "I'll put you so clost you kin pick 'em up in your hands. Jest like ducks when they see a light."

"Too bad the ducks are gone," said the younger. "We were making all kinds of money."

"Yes, 'tis too bad, but get the light and the guns in the skiff. We got to go and git 'em and be back here 'fore the moon rises. We got 5 hours yet; but they must be all of 2 mile off."

At a little island a mile away half a dozen float houses were pulled up against the marsh and half a dozen big sail boats lay at anchor. Preparations of quite a different kind were making for the night. The occupants of the float houses were battery shooters. Two or 3 men were loading Winchesters; others were loading shot gun shells with buck shot and slugs made from net leads, which another man was chopping up with a hatchet. The talk was loud and indignant. Contrary to his usual custom the poacher had kept off the club marshes the preceding 2 months, and had been sneaking and firelighting the raft ducks; and so successfully that the ducks had finally left that part of the Sound. Naturally the battery shooters were wrathful; their business had been broken up.

"Why doesn't he stay on the marsh?" growled one.

"It's all that cussed pardner," said another. "He always did stick to the marsh until he come up here."

"Never mind," said a third, "either we git them to-night or make 'em so sick they won't do no more lighting."

"That's the stuff," chimed in a man with a rifle, "make 'em sick, and sick enough to die, if we kin."

About an hour later, with a powerful reflecting lantern on the bow of their skiff, the poacher and his pardner were shoving down on the big raft of swans. It would have been a wonderful sight for an artist. The long, bright beam of light, gradually widening as it left the boat, showed everything with startling vividness. The brown sedge on the edge of the marsh, the frightened swans like great movable bundles of fleece, now swimming away and now bunching and approaching the fatal light; even the sandy bottom of the Sound, all were distinct. The poacher guided the boat with his long shoving oar. His pardner was forward, gun in hand. They could see the little beady eyes of the great birds. Silently the boat glided still nearer. The swans bunched again.

"Now," said the poacher, dropping the stick and picking up his gun. The 4 reports followed one another in rapid succession. Half a dozen large bunches of white, showing plainly on the water, and 4 or 5 cripples paddling for the marsh, told of the execution they had wrought. The pardner picked up the stick and pushed to the nearest bunch and the poacher pulled it in the boat. They passed to the next, where 3 lay together, and got them. Then came the reports of half a dozen guns and rifles and the air was full of slugs, bullets and big shot. The poacher was overboard in an instant, only his head showing above water. His pardner reached for his gun. The rifles still cracked and the bullets whistled.

"Drop it, man! Put out the light and lay overboard," said the poacher, quickly. As his pardner reached for the light, a jagged piece of lead, fired from a shot gun did his work for him. He was at once in the water.

"Now," said the poacher, "git them dead birds inter the boat and pull her on the marsh. Maybe they'll go away."

Both men were perfectly cool; they had

"been there before." The others, now the light was out, had nothing to shoot at, but they knew the poacher would go to the marsh, so they shoved down hard for the shore. They meant business.

The poacher and his pardner pulled their skiff into a little slash, concealing it as well as possible, and taking their guns, squatted in the long grass, about 10 paces from the boat. They were on a small sedge island. Within 5 minutes their pursuers were on the island, too, holding a hurried consultation. It was one thing to shoot at a light 200 or 300 yards away; but quite a different proposition to follow up 2 desperate men, armed with shot guns, the deadliest known weapons at close range, through thick sedge and rushes. The poacher was popularly supposed never to miss a duck, no matter how dark the night; and his pardner was believed to be a fugitive from justice. The majority favored letting things go as they were and returning to their float houses. One or 2, however, proposed to burn the sedge and run out the fugitives. The debate waxed warm. An accident decided the question. One man thoughtlessly struck a match to light his pipe. The skiff, full of dead swans, with the shattered lantern still hanging on the standard, was plainly visible. There was a unanimous cry:

"Let's take the skiff and leave 'em to swim home."

Willing hands seized the skiff. The poacher and his pardner cocked their guns. His pardner turned his single eye on the poacher.

"Talk to 'em," he whispered, briefly. "If you don't, I will."

The poacher half rose and his voice was hoarse: "See here," he said, "you men has messed me all up enough fur once. Now git and don't furgit to leave that skiff."

He paused, and his pardner came to his assistance, adding, in a hard metallic voice that vibrated with half suppressed rage,

"If yer don't go, we shoot."

The pursuers were clearly at a disadvantage and saw the point at once. They were at the water's edge and their figures showed plainly against the sky. Their enemies were well hidden in the thick sedge. Without a word each man got in his skiff and shoved off.

"Now," said the poacher, "carry me to the boat and shove for the main shore and a doctor."

How that trip was made will never be known. The poacher was full of big shot. The same load that put out the light, had sent a piece of lead through his pardner's left arm, making an ugly flesh wound. A rifle ball had grazed his hip. Nevertheless, the trip was made, and before daybreak they were well on their way back to their shack. The poacher cursed freely all guns, gunning and gunners, particularly battery shooters. His pardner's only comment was,

"There is a law of compensation." The poacher broke off suddenly.

"What's that there mean?" he asked.

"Oh," said his pardner, carelessly, "it means things always break even. If the rich man gets his ice in the summer, the poor man gits his'n in the winter." The poacher grinned.

"I reckon we be pore enough, all right, if that's it," he said.

A swarm of bees chased Willie,
Till the boy was almost wild,
His anxious parents wondered
Why the bees pursued the child.

To diagnose, they summoned
Their physician, Dr. Ives,
"I think," he said, "the reason's clear—
Our Willie has the hives."—Widow.

A DECEMBER DUCK SHOOT.

A. C. GOODCHILD.

Dick, waiting in front with the team, found waiting tiresome. At times he viewed the prospects which our trip offered us; but mostly he watched the Eastbound shadow of the old dial in the garden. The afternoon was wearing along and he was becoming anxious; for the 30-mile drive to our destination would already, if everything went well, carry us some hours into the night.

While he was thus occupied I appeared from around the house, bundled dog, guns and myself into the wagon, and we at once took the road. Up and down, past fertile nooks and grassy hillsides we drove, chatting the while, until the short twilight gave place to the splendor of a full moon. Southward swept the white line of the coast road 20 miles, and down it we went.

Soon the horses were plunging across the Arroyo Grande; luckily there was not much water. Safe across, we continued to turn mile after mile. The tide kept steadily rising and drove us higher and higher on the soft sand. We pushed on as best we could until we came to the outlet of Oso Flaco lake. Without crossing we followed it over the sandhills to the lake itself. Another 8 miles, this time over a good road, took us to our destination, an ideal place, under a clump of beautiful trees where water and fuel were in plenty. It was not yet 10 o'clock.

In a wonderfully short time camp was made, blankets spread over our collapsed tents, and the horses attended to.

After breakfast next morning some little time was occupied in putting things shipshape. Then with guns in hand we sought the ducking grounds; Dick going upstream, I downstream. The day came slowly out of the East, and presently the dull report of a gun came over the marsh. The work of the day had begun; the ducks were flying. I wondered what Dick had shot, or shot at; but then it was my turn and soon Jack was retrieving a plump spoonbill. Some people never use this bird, but when it has attained good condition on a freshwater marsh, the spoonbill, or shoveler, will rank with the best widgeon. Then almost directly a flock of pintails came flying over me. So noiseless was their flight, however, that by the time they had attracted my attention and I had brought my gun to bear they were well nigh out of range of the following No. 6's.

The flight did not last long and I made slow progress in increasing my bag. Only one solitary widgeon did I shoot, after walking an hour, downstream. I continued to walk leisurely down when swish went a flock of teal some 70 yards from me at full speed. I gave them a salute and to my astonishment 2 responded to the call of my left barrel. Before I had extracted my shells some widgeons came flying by, and in the confusion a bulged shell stuck. Eight widgeons went by within easy shot before I could reload.

While I was engaged with that vile shell I heard the call of quails on the hill opposite. There being no ducks in sight I was soon scrambling up the hillside. Jack worked all through the cover but without finding a bird and presently I was retracing my steps down the hill, a sadder but a wiser man. At the foot of the hill was a large jungle of rushes through which ran winding passages. In these Jack separated from me, but on finding my way out I observed him by the water's edge pointing, as staunchly as could be, some butterballs in the water. I flushed the ducks, cut down 2 with my right barrel, and another with my left. For the first 2 Jack made but one trip; for though a pointer the veteran dog does not hesitate to retrieve from water.

Shortly after, I walked downstream. Away, as far as I could see, several flocks of ducks circled round and round. After a while one flock came nearer. I advanced with excessive caution, but unfortunately did not mark them down as well as I might have done, and they flew their way unharmed. Presently I arrived at a bend of the slough, and, having placed my canvas decoys on the mud, I nestled behind a fence which afforded an excellent view of either side. At last I perceived a flock of ducks, and their flight was toward me. Presently 2 birds came down, one a gadwall, the other a female mallard. I shot the gadwall, which flew on, evidently hard hit. When he had flown 100 yards a pigeon hawk appeared, flying from right angles at full speed, struck my bird, and sent him stone dead to the ground.

By that time it was getting near noon, and I proceeded to shoot my way back to camp along the water course. After a while from behind some tules there fluttered up a teal which, crossing me, presented an easy shot, and I brought him to grass. Shortly after, I got up some others, but with less favorable results, only one finding his way into the bag. On reaching camp I found

Dick had succeeded in shooting quite a respectable bag of ducks and a few snipe. Among them was a magnificent redhead. This bird used to be quite plentiful, but of late years seems to have been supplanted by the canvasback.

After luncheon Dick was so anxious to return to the snipe that, hurriedly supplying myself with some light shells, I joined him. No sooner had we begun to walk the bog than a chuckling snipe went sailing away from behind some high grass and out of gun shot. Three others got up, and we each got one of them. Presently we flushed 2 more, and I just caught a glimpse of the hinder one as he went around a clump of willows. I turned off to work up wind. Dick continued down and bagged another. Then I missed 2 long shots. A little farther on another bird rose from bare ground at my approach and fell, after a twisty flight, to my second barrel. Thus we kept on, I frequently missing. After bagging 4 I decided to return to the ducking grounds, thinking I could better attend to ducks; nevertheless I had a merry 15 or 20 minutes with the snipe.

In making my way through the undergrowth near camp I unexpectedly came on an open place, whence a flock of teal got up. I fired twice, cutting down a brace. Soon a lone widgeon came in sight, speeding down the line. At my first shot he only turned his course, but my left brought him to the water.

I sat in my blind and watched some moor hens on the farther side and the arrival of a diver. It was one of those days of excessive quiet and restfulness; every cackle of the mud hens and even the dip of the diver were heard. At length a faint breeze brought, of a sudden, a sound of wings to my ears. My curiosity was aroused and I looked up. Upstream and just out of gun shot went flying a bunch of plover.

I pulled myself together, and almost directly there came a deafening roar, as a mass of wild fowl like a dark cloud for a minute obscured the sun. Then there were alternations of darkness and light, the wind increased to half a gale and the flight kept on. The surf on the beach roared louder and louder as the wind increased. The air seemed full of ducks. The fun grew fast and furious, and many a sprig, widgeon and teal made the fatal mistake of venturing too near. In an hour the gale abated and the flight was over.

I pushed my way through the close tules for the path that led to camp. On coming suddenly into the open I surprised a flock of geese feeding near, where wild celery grew in profusion. They flew straight away, then wheeled and sailed over a hill in such a way as to indicate that they would alight. Around the hill I went and found them as I had anticipated. I tried to reach a bush 20 yards distant that would afford a fairly good hiding place, but before I could get there they flew away.

Right there should have ended my wild goose chase; but, no, the afternoon wore on to its close and I chased and chased and the geese flew hither and thither until they eventually disappeared in the direction of the ocean. The sun had gone down, and disconsolately I trudged through the swamp to camp.

The following morning I awoke to find the weather cloudy, and a light wind from the South threatening a downpour of rain. As soon as it was light we started out. We skirted the little wood below camp, but kept along the water course where it was possible. Out of a reedy pool I got a mallard and his mate. When we neared the beach we saw flocks of plover, avocets and curlew.

Separated from the beach only by a stretch of sand lie 2 freshwater ponds, and to these we directed our steps. Several jack rabbits were seen and cottontails were evidently plentiful. At last we reached the sand dune next the more inland of the ponds. As we peered over its top we saw hundreds of canvasbacks and a flock of white fronted geese scarcely 10 yards away; the ones of the previous evening. It was my turn now.

While Dick ran to get between the birds and the sea I singled out a big goose and fired. Then, without releasing the trigger or waiting to see the result, I worked the slide until the magazine was empty. Result, one goose and 16 misses. Meantime the canvasbacks and geese were flying in the direction of Dick. At last 2, 4 and then another went toppling down almost before I heard the crack of his first shell. Jack cleverly retrieved my goose.

Five hours later our buckboard again stood in front of our home.

A theater party is a mistake: If the play is interesting, the people bore you; if the people are interesting, the play bores you.

A FLORIDA HUNTING GROUND.

W. N. PIKE.

It would be difficult to imagine a more delightful experience than a hunting trip to Florida in midwinter, providing always one is fortunate in the selection of locality, boarding place, guide, etc. The delicious Indian summerlike days, the gorgeous sunsets and the hardly less radiant moonlight nights; the balsamic breezes of the pine forests, the never fading verdure of the palms and magnolias; the wild flowers under foot and the laughing, dimpled lakes and lazily winding rivers; all combine to form a picture in the vivid contrast to conditions existing at the North during winter's stern reign.

A BOAT BUILT TO FIT.

There are large sections of the State which are annually over hunted and others where tourists swarm, where civilization obtains, and from which all game worthy of the name has long since fled. There are other localities where game is sufficiently plentiful to suit anyone but a hopelessly confirmed game hog, but where "grease and grits" and other gastronomic horrors of the Florida backwoods kitchen offer a barrier which no self-respecting stomach can surmount. As to guides, there are good, bad and indifferent ones in all parts of the country; but it is my good fortune and that of a limited number of other readers of RECREATION to know of a sportsmen's resort in Central Florida which can be unreservedly recommended in every way. I refer to The Jolly Palms, at Mohawk, Lake county, kept by Charles H. Stokes.

Mohawk is a tiny place, situated in the so called Apopka mountains, a chain of sandhills 100 to 300 feet high, about 6 miles wide and 12 miles long. These hills are clothed from base to summit with long leaf pine, with some oak intermingled, forming open, parklike woods, carpeted with a scant growth of wiregrass, with here and there clumps of palmetto, plum thickets, etc. Many of the valleys are occupied by lakes of varying sizes, the waters of which are soft, pure, of crystalline clearness and abound with big mouth bass, bream, perch and other fishes.

The Jolly Palms is built on the side of a hill, with its grounds running down to the sandy shore of one of these beautiful lakes, from which bass of over 10 pounds in weight have been taken. A footbridge extends out about 100 feet from the shore to a combination boat and bath house. The bottom of the lake is of white sand and the water is so clear it looks green inside the structure. To bathe in those soft, limpid waters on rising in the morning, or after a day's hunt afield, is an invigoration and a delight which must be experienced to be appreciated. Orange

and other tropical fruit trees, shrubs and vines, are scattered about the grounds, forming a beautiful and interesting setting for the main cottage and its annex.

Although on a railroad and easily reached from Jacksonville, Mohawk is entirely off the beaten lines of tourist travel, and is in the midst of an extensive territory which has never been overhunted. Quails are plentiful in the surrounding hills, and the open woods make the hunting of them easy and pleasant. The man who has never hunted quails under a mid-winter Florida sky has missed one of life's best chapters. There is also a fine snipe marsh only 4 miles away on the borders of the great Lake Apopka, the second largest lake in the State, being 50 miles in circumference. Large flocks of ducks congregate on that and adjacent lakes, rabbits, fox squirrels and some deer are found on the hills, while the lower and more densely wooded tracts, hammocks and swamps harbor wildcats, foxes, raccoons, opossums, cat squirrels, and an occasional panther or bear. A light cypress boat, built to fit a wagon, makes accessible the waters of any of the numerous lakes surrounding and within easy driving distance of The Jolly Palms; and there are days when the bass in some of those lakes would sorely tempt the staunchest member of the L. A. S. to become a confirmed fish hog.

Next to the pleasure of legitimately hunting and killing one's game is the satisfaction of having it properly cooked and served. This Mrs. Stokes can do in a manner calculated to tempt the appetite of a dyspeptic or to satisfy the most epicurean taste. In fact, the dining room is one of the strong attractions at The Jolly Palms. It is a revelation and a delight, not only in the variety and palatableness of the food served, but in its scrupulous neatness and attractiveness in all respects. No substance from a "tin cow" appears on that board, but instead the rich product from genuine Jerseys, which gives to coffee and breakfast cereals their choicest flavor. Charlie Stokes himself is a past master of the art of camp cookery, some of the repasts *al fresco* over which he was the presiding genius being among my most cherished recollections.

Twelve miles South of Mohawk lies the beginning of what is probably the best hunting ground in Florida, the great Green swamp, in which the weird and winding Palatlakha river has its source. Although called a swamp it is not one in the true sense of the word or as we understand a swamp in the North. Instead it is a vast stretch of shallow water filled with innumerable islands varying in area all the way from the fractional part of an acre to several hundreds or thousands of acres. The water is not stagnant, but moving, soft and pure enough for drinking, and shallow enough in most places to admit of wading from island to island, the bottom being hard and sandy. The islands are covered with forests, some with pine or cypress and others with a variety of semi-tropical trees, often overrun with a tangle of vines and creepers, and abound in a great variety of game; bears, panthers, deer, wildcats, raccoons, rabbits, cat-squirrels, wild turkeys, quails, wood ducks and sandhill cranes. Otters and alligators also inhabit portions of the swamp and are hunted for their skins by a few native trappers who live permanently in the swamp and know its fastnesses like a book.

Camp hunts to this swamp are a feature of the winter sporting season at The Jolly Palms. A tent and full camping paraphernalia are taken along, and every preparation is made for comfort during a sojourn in what one of New York's best sportsmen has declared to be one of the finest natural game preserves in the United States. Such a hunt is sure to be a novel experience to anyone from the North. The strange cries of waterfowl, the hooting of owls, the gobbling of wild turkeys, the clarion whooping of sandhill cranes, the snarling of wild animals and the occasional bellowing of alligators, together with the quaint vernacular and unique idioms of speech of the native trappers, employed as guides, will make an impression which will linger on memory's walls a long time. Venison and its rival delicacy, broiled breast of sandhill crane, with roast turkey, quail and black bass are features of the menu on these camp hunts.

If you are contemplating a winter vacation in quest of rest, health, or sport, you will not be disappointed in The Jolly Palms, unless you are a game hog. The proprietor is a member of the L. A. S., endorses the aims and principles of that organization and will not knowingly extend hospitality to specimens of the genus *Homo porcinus*. Write in advance for accommodations, as only a limited number of persons can be cared for at one time. Extremely modest claims are made for this resort by its proprietor, with the result that guests are treated to the surprise of finding everything better than is promised. Mr. Stokes is an expert photographer and has a laboratory and dark room for the use of guests photographically inclined.

To reach Mohawk from Jacksonville take the Seaboard Air Line Railway to Tavares, changing at the latter point to the Tavares & Gulf Railway, which will leave you at the gate of The Jolly Palms. Seaboard Air Line trains are run from

New York through to Jacksonville without change, making the trip between the 2 cities in about 30 hours.

If you wish to combine the pleasures and benefits of a sea voyage with your trip take passage at either Boston or New York on one of the many fine steamers which the Clyde S. S. Co. runs to Jacksonville. These steamers are really floating hotels, equipped with the conveniences and luxuries of the transatlantic liners, making passage on them not only comfortable but enjoyable. A stop is made at Charleston *en route,* furnishing a pleasant break in the journey and an opportunity to view the sights of that old and interesting city of the South; and the trip up St. John's river, from its mouth to Jacksonville, is full of interesting and novel features, to no one more so than the real sportsman just released from environments of ice and snow.

LOOKING AHEAD.

C. C. HASKINS.

Dark is the day; the fierce wind blows,
And the earth sleeps cold through the wintry gloom;
Bare are the trees and the birds have flown
To the summer land where the roses bloom.
Yet bright is the blazing, cheery grate,
And cosy the seat near the embers bright;
While over the mantel, awaiting the spring,
My camera rests through the winter night.

The swaying limbs of the old roof-tree
Are hoarsely rasping the ice-filled eaves,
And the breezes piping their whistling song,
While snowflakes fall like the autumn leaves.
Yet here, where the grate's illuming fire
Bids comfort reign and the shadows grow,
My faithful friend, old Don, is stretched,
Beside my feet in the cheerful glow.

The windows rattle in noisy glee
When the pelting hail comes swiftly down;
And the sleighs go by with their 'inkling bells,
With songs and laughter and shouts from town.
Yet calm in the genial crimson glow
I'm dreaming of days that will soon be here,
When storm and winter have had their day
And spring will come with its joyous cheer.

The leaves now sleeping will soon be born,
The flowers with fragrance will scent the wood;
The bright plumed birds will fill the air
With color and song in their gayest mood.
The sun with a genial warmth will shine,
The brooks will laugh through their foamy crest,
Then Don, good fellow, to hunt with the lens,
We'll seek in the wilderness nature and rest.

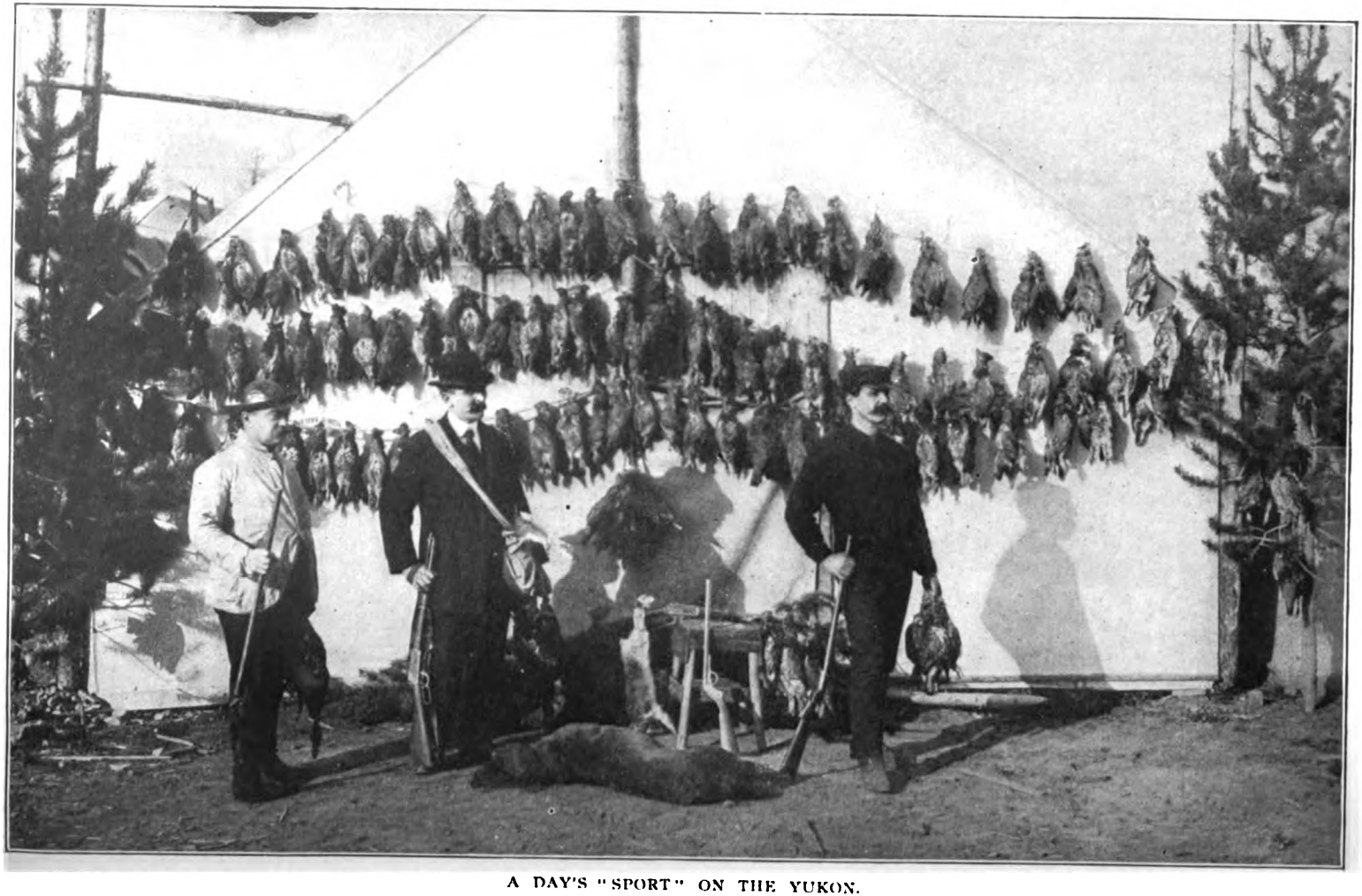
BABIES FOR SALE.

I hand you herewith 3 photos of a pair of cougar kittens, which I captured a few days ago. They are growing rapidly, and at present are great pets. This being my first experience with young lions, and, remembering the mother as she appeared when I ran into the nest, with the family at home, I deem it wise to dispose of these little chaps as soon as possible. If anyone wishes to buy them, I should be glad to hear from him.

E. B. Simpson,
3206 North 27th St., Tacoma, Wash.

Not long ago a coroner's jury in Ireland delivered the following verdict on the sudden death of a merchant who had recently failed in business: "We, the jury, find from the doctor's statement that the deceased came to his death from heart failuse, superinduced by business failure, which was caused by speculation failure, which was the result of failure to see far enough ahead."—Argonaut.

"So you are going to get an automobile?"
"Yes; the doctor says I must walk more."—Washington Star.



A DAY'S "SPORT" ON THE YUKON.

Clark Ellsworth, R. R. Russell, R. T. Rogers. See page 458.

MY CHRISTMAS TURKEY.

JAS. CAMPION.

The night before Christmas I stepped off the train at a village in Webster county, West Virginia, in quest of turkeys. I had received a letter from a friend stating that turkeys were plentiful in the hills and that if I should arrive in time I would have some good shooting. Accordingly I packed my Winchester .30-30 in its case and embarked for the mountains. At dawn Christmas morning we finished our breakfast of coffee and roast chicken and departed for the woods, promising the women we would, if possible, have the king of birds on the table for dinner.

John went up the right fork of a small creek and I the left. There were plenty of turkey signs, but no birds, and the sun was high when we emerged from the creek bottoms and climbed to higher ground. Everywhere nature was in her glory, the warm sun bringing forth all the birds, which darted in and out among the golden and russet leaves of the oaks.

John had stopped to light his pipe and was in the act of striking a match when I heard a rustle in the bushes to the right. I wheeled around in time to see a turkey dash into the bushes, followed by a charge of shot and a rifle ball, but he escaped.

It was then 10 o'clock, and we were beginning to think that luck was against us. We determined to stay in the game, however, and proceeded farther into the woods in the direction the turkey had taken. In about 10 minutes we came out in a little open spot in the woods. This clearing in turn opened into another, and I was walking for that when my friend grasped my arm.

"Down, quick, Jack!" he said, as he dragged me into the underbrush. "Look yonder!"

I followed the direction of his arm, and beheld, perched on a tall, dead pine at the other end of the clearing, and outlined against the blue sky, a magnificent golden bronze turkey. The splendid old fellow seemed to be excited about something, and was craning his neck to the North. The distance was about 200 yards, a long shot. I wished to steal up on him and lessen the distance, but my friend would not listen.

"I have been in these hills long enough to know yonder bird, Jack, and if you try to crawl up on him we will be without a Christmas dinner. Conditions are against you. The minute you emerge from the bushes he will see you and it will be all over. Try him from here with that little popgun of yours."

I had great confidence in my Winchester. I knew that if I held it right it would do its work. Using an old stump for a rest I took a glimpse along the Lyman sights and fired. A second later I was greeted with a few choice words not in the Bible.

"You've missed him, Jack! You fellers from the city don't know how to shoot!"

He was partly right. We began to look at each other uneasily. It was near the noon hour and the stove in one West Virginia home was waiting. John shot a brace of quails by way of something to take home, and, giving up the turkey hunt as a bad job, we retraced our way homeward.

The sun was directly overhead, casting its warm rays on the hilltops, as we came out into the creek bottoms, when we heard the welcome "put, put, put," of a turkey. It was repeated again and again, the sound coming from the direction of a clump of chestnuts, and we soon made out another large bird. The distance was a little longer than the first shot, and the conditions were the same as in the first case. I crawled in behind a pine, taking aim at the center of the slowly waving mass. The rifle had scarcely spoken when my friend greeted me with an altogether different cry.

"You've got him, Jack!"

I saw the turkey come down like a bag of sand. We ran up to the tree, and, great Scott! No bird was in sight! I dropped my gun in disgust. It seemed as if I had hunter's luck again, when suddenly, 100 feet away, I saw the body of that great, proud turkey.

The ball had entered his breast and had come out at the other side, yet, mortally wounded, he had covered that distance! True Yankee courage! I felt sorry he should die; but so is the will of the sportsman.

It was 4 o'clock that afternoon when John, his wife and I sat down to a dinner of wild turkey, flanked with his smaller brethren, the quails; baked sweet potatoes, cranberry sauce, and pumpkin pie. It was indeed a dinner fit for the gods.

Uncle—How old are you, Jimmy?
Jimmy—I'm 13 at home, 14 at school, and 11 in the train.—Tit-Bits.

TRAPPING THE SKUNK.

J. A. NEWTON.

The skunk is a much maligned animal and by no means so pungent and aggressive as he is generally represented. On the contrary, he is a peaceable, well meaning fellow, and, normally, no more malodorous than are many rodents. True, when driven to extreme defensive measures he does what he can, and the result is often surprising, not to say suffocating. Wise trappers, however, dispatch him without any preliminary provocation of his temper, and the plan has distinct advantages. I have often caught and skinned skunks all day and gone into company at night without a betrayal of my previous occupation.

Though the skunk contributes a large proportion of the country's fur crop, even posthumous fame is denied him. Thousands who would scorn to dress in skunk skins wear his heavy, durable fur, under the name of black marten or Alaska sable.

The skunk is a true hibernator, strictly nocturnal, and gregarious when denning up for the winter. He retires about December 1st in the Northern and New England States. His trails are seen after that date only during mild weather, until February, which is mating time. When his fancy lightly turns, a low temperature has but little restraint on his movements; the depth of snow alone seeming to curtail his travel. Old deserted burrows of the woodchuck, fox and badger are appropriated. These re-established habitations may be known early in autumn by well traveled paths leading to them, and by signs of nest material having been carried in. Usually a considerable fecal deposit will be seen near the burrows, which may be identified as skunk sign if it contains a mass of undigested shells of beetles and other hard cased insects. These, together with grubs are eaten in large numbers, and form the greater portion of the animal's food in summer.

Skunks are usually taken by trapping or by digging them out. The latter method is the surest and most remunerative when they can be tracked and until the ground becomes frozen hard. Then it is often a laborious task to unearth them. Traps are more successful when the ground is bare and tracking poor; also during February, when tracks are so numerous and so many holes are visited, that it is difficult to locate the game.

No especial care or skill is required in taking skunks. Place the trap in the mouth of the burrow and cover lightly with dry grass or leaves. It should be stapled to a pole so the game may be handled with safety.

Although skunks are not credited with shrewdness in avoiding traps, they are extremely lucky in keeping out of them at times. I have had them step between the jaw and pan without springing the trap. More can be caught while entering a burrow than when coming out. Often I have run one to earth, and placed the trap with great care, only to find on the following morning that he had escaped by going around or over the trap, perhaps springing it without getting fast.

I now use a No. 1½ trap for them because the jaws strike higher than those of a No. 1; and if possible I drive stakes on each side of it against the bank, which forces the animal to walk over the snare.

To dispatch skunks I use the 22 caliber cartridge, shooting behind the shoulder. This causes a less violent death than a head shot, and often prevents any odor. In running time the best success may be had by setting traps in holes most frequented, and placing a beefbone, kidney, lights, or a rabbit's head in the burrow just beyond the trap.

Skunk hunting, like many other pursuits yielding money, breeds thieves and swindlers. There are men who will dig out a nest of skunks their neighbor has found and stopped in, while that neighbor is in quest of tools. Traps are robbed, pits sunk beyond a competitor's trap and the spoils lifted. Sometimes amateurs get fooled by thinking that a burrow at which a trap is set must contain game. They spend hours in excavating, only to discover that their greed has exceeded the return. Nor does rascality stop there. Black skunks, those having white only on the head, are scarce in proportion to the other 3 grades, viz., half stripe, full narrow, and white; and are worth 50 to 75 cents apiece more. The unscrupulous see it to their advantage to make as many black skins as possible. Therefore the buyer must be ever on the watch for half stripes which have been blackened or from which so much white has been pulled as to damage them. A good buyer is never taken in; skins that have been doctored are easily detected.

A skunk catcher need not be a nuisance to his leeward neighbors if he use proper precaution; but if he is reckless and indifferent the very dogs will resent and assail him.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman.

SPORTSMEN SHOULD HUSTLE.

Watertown, N. Y.

Editor RECREATION:

For years I have been trying to stop the spring shooting of wild fowl in this county. Last year I succeeded. Last spring our waters were alive with wild fowl long into June, and they became as tame as domestic fowl. Many of them stayed and rested. Others found choice feeding spots and returned earlier in the fall, and in larger numbers than ever known before. We had the best fall duck shooting we have ever enjoyed. We did not have to wait for cold weather to drive the ducks down from the North. We had them by the thousand from the 1st of September till our waters froze. It took me 5 years to secure this law, and I did it in the face of strong opposition; but I do not believe there is a duck shooter in the county who would consent to its repeal.

The black and grey squirrels, grouse, and woodcock, are nearly exterminated in this county and I am trying to get a close season for 2 years. Will I get it? Oh no! Why not? Everyone says, "It is a good thing. We want it. At the end of 2 years we shall have splendid shooting. Go ahead, Billy, and get it. We'll back you"; but not one in 50 of these enthusiastic sportsmen will spend the necessary time and 2 cents to write our representatives asking them to support the bill. Last year I turned out 2 pairs of Chinese pheasants. They bred and raised 27 young. These birds lived through the winter, the worst one for snow that we have had in years, without any aid by food or shelter. If this law goes through we shall stock the county with pheasants. Every sportsman in the county knows this, and is anxiously watching for news from Albany, but it is dollars to doughnuts that not one in 50 has spent a cent in the cause.

There is no county in the State better adapted by nature for fish and game than Jefferson. In Chaumont bay and the waters of Lake Ontario, from Cape Vincent to the Oswego county line, we have the finest small mouth black bass fishing in the State. From Cape Vincent to the St. Lawrence county line we have the beautiful St. Lawrence river, with its thousand islands. Once it was famous for its black bass and muskalonge fishing; but, owing to a foolish law that forbids the taking of any fish except with hook and line, it is rapidly filling with coarse fishes, which the angler does not care to catch, and which, to a large extent have driven the game fishes from its waters. Until the Anglers Association of the St. Lawrence river consents to the taking out of these coarse fishes by netting during the fall and winter, at a time when the bass are in the deep waters of the lake, their bass fishing will grow poorer each year.

These waters and the numerous lakes and creeks scattered throughout our county, make it a splendid wild fowl preserve. We have hundreds of acres of woods and covers where a few years ago there was an abundance of small game, and where if the few remaining birds were allowed to breed unmolested for a short time they would make glad the heart of the sportsman by their abundance. I presume, however, the average sportsman of the State is like the average sportsman of Jefferson; he will not help get good laws, or help enforce them when obtained. How many of you have written your representatives, asking them to stop the sale of game or the spring shooting of wild fowl? Have you? How many of you, when you see or hear of a violation of the game laws, notify the nearest game protector, and help him to prosecute the offender? Not many, Most of you sit around and kick because the State protector, perhaps 50 miles away, does not find it out and prosecute the law breakers; but let this same fellow steal your gun or dog, do you wait till some officer of the law comes around and finds it out? Oh, no! You get a hustle on and spare no money or effort to bring the thief to justice. Until the sportsmen for whose especial benefit our laws for the preservation of fish and game are made, learn to respect these laws themselves, and give our State protector the same aid and support they give the peace officers, for the enforcement of the civil law, they have no just reason to complain that our game laws are not properly enforced. I suppose you sportsmen who love to shoot and fish for sport only will at once put me down as a crank, will continue to shut your eyes, and say nothing, keep your 2 cents in your pocket, let a few cranks from each county do the pushing for all of you, and then kick because we can not push hard enough to get what you want.

The average representative at Albany is satisfied with his job. He wants to go back. If 2 or 3 cranks write him he does nothing. If 200 or 300 sportsmen write him that is different. He may need those votes next fall. The sportsmen of each county could control their representatives, but they never will as long as there are so many 2 cent sportsmen. W. H. Tallett.

NEWFOUNDLAND LAW INCOMPLETE.

Knowing your sense of fair play, and having, for several years, watched with approval your unremitting efforts to suppress game hogs, I regret noticing in your August issue that you have put the shoe on the wrong man's foot when writing about the change in the game law of Newfoundland.

The real, I might say almost the only, criminals in the wanton slaughter of caribou taking place annually in Newfoundland, are the natives themselves. In the winter months, when little fishing is done and the caribou migrate to the Southern end of the island, the natives, armed with all sorts of weapons, from flintlocks to huge sealing guns, make for the barrens and there ruthlessly murder hundreds of caribou, which are then shipped to St. Johns and other ports to be sold at 2 or 3 cents a pound. Often the meat spoils and is thrown, literally, to the hungry dogs. This is not all, for oftentimes these butchers are so surfeited with the meat, that they will kill a caribou for one tidbit. I have known of their killing 2 or 3 in order to utilize the hides for making a raft to cross Grand pond.

For every caribou killed by visiting sportsmen, 25, aye, 50, are killed by the natives, who pay no license. Furthermore, the officers of the British fleet patrolling the French shore, who pay no license fee, are great game hogs, being proud, I am told, of bags of 15 or 20 stags in one season.

A reasonable, conservative and well informed Newfoundlander, speaking to me last summer on the subject of game laws, gave it as his opinion that 5,000 or more caribou were annually slaughtered by the natives. If they did this to feed themselves no one could object, for the poor wretches live on cod 10 months of the year; but they do it for the market, wherein lies the sin. He also stated that no proper law could be framed which would pass the legislative house, the natives considering it their inalienable right to kill all the caribou they please; and any representative daring to vote against their ideas, would be sure to be dropped.

It is a safe statement to make that 99 out of 100 American sportsmen in Newfoundland keep to the spirit as well as the letter of the law, and the few infractions so far known have but served as pretexts for the passage of a most ridiculous change in the game law. To charge a sportsman $100 for a license to shoot, while the natives and the British naval officers pay nothing at all, and constantly go beyond all limits of decency in the ruthless destruction of caribou, is but another instance of the folly, of granting the franchise and a full fledged government to the most ignorant and most backward people in North America.

J. G. Van Marter, M. D.,
Savannah, Ga.

The new game law of Newfoundland provides that no resident of that country shall kill more than 3 caribou in any one year. It also prohibits the setting of snares, traps or pits for caribou; hunting them with dogs or hatchet, tomahawk, spear or with any weapon other than firearms loaded with ball or bullet; or killing them while swimming in any water.

If this new law could only be enforced, it would naturally stop the terrific slaughter of which Dr. Van Marter so justly complains; but unfortunately no money has been appropriated for enforcing the new law. There is no provision for tne appointment of game wardens or other officers to enforce the law. It now simply becomes the duty of every citizen of Newfoundland to obey the game laws, as a matter of honor. Whenever anv resident of that island violates the game law, it becomes the duty of his neighbors who may know of the fact to prosecute him and have him properly punished. The new law will have a wholesome effect and will greatly reduce the killing of game, but it will not entirely stop the slaughter. The Legislalature, at its next session, should enact a new clause prohibiting the sale of caribou meat or skins, and should provide for the appointment of several game wardens; also for the payment of their salaries and traveling expenses. Nothing short of this will completely protect the caribou of that country.—EDITOR.

THE SITUATION IN MONTANA.

My interest in anything pertaining to legitimate sport in field, bush or stream will never slacken. I am somewhat like yourself, having even given up my own time and pleasure to the good cause of protecting game and fish. I have not fired a shot for 3 years at game, and I feel that my hunting days are past. You may rest assured I shall always do all I can to enlist workers for the cause of game protection; but Montana is barren ground.

I have worked like a horse for the cause; not for any salary. I gave the State 2 years of my life without compensation. The State owes me several hundred dollars for cash expenditure which I shall probably never get back. I wanted to resign my position as State Warden as well as my membership in the Fish and Game Commission, because I was not willing to lend my name to a farce, such as I found our existing game and fish laws to be. I was

asked by friends to hold on until a Legislature meets that will make a law which can be enforced. The present law does not stand; neither judge nor jury can be found to enforce it; and the public is not in sympathy with its provisions. When I finally lay down my office I will make statements that will surprise you.

Undoubtedly the Lacey act will give us a good deal more ground to stand on than we have had; but what can be accomplished without funds to work with? We have no appropriation; and what can you expect of unpaid officers. The county wardens are mostly creatures of the county commissioners who elect them. Only 6 counties have wardens, and the only help we receive is from the forest rangers, who are suspended for want of funds when most needed.

I have tried hard to add members to the L. A. S., but it is worse than begging for a living. Still, I shall continue to try.

R. A. Waagner, Bozeman, Mont.

I have for a long time fully appreciated the great difficulty under which you and the other friends of game protection in your State are laboring. You certainly have about the poorest system of game and fish laws of any State in the Union, and this would seem to indicate that you have about the poorest outfit of law makers to be found anywhere on the continent. Of course, your Legislature would not admit this, but it is said that by their fruits ye shall know them. It is a burning shame that a body of representative citizens, charged with caring for the interests of the people of a great State should have allowed the game which once covered Montana to be slaughtered and driven to the verge of extinction as it has been. When we realize that probably 90 per cent. of all the farmers and ranchmen and probably 50 per cent of the business men of your State shoot or fish more or less it seems incredible that they should allow their opportunities for indulging in these sports to be swept away as they have been. Evidently the balance of the voting power is held by the miners and other laboring men, who pay almost no taxes, but who can vote as early and as often as anybody. Your law makers are evidently swayed by this element, and have failed to provide your commission with a fund for enforcing such game and fish laws as you have because these sons of toil object to paying taxes for such purposes.

Still you should not be discouraged. Public sentiment among your people is growing in the right direction and the League is leading it and developing it every day. Some of your newspapers are also doing good work in this direction and others will doubtless fall into line in time. Keep up the agitation, and in time you will be able to induce your Legislature to make the needed amendments to your laws and to appropriate money to enforce them. —EDITOR.

The above was written in in 1901 and the game laws of Montana have since been materially amended and improved.—EDITOR.

BIG GAME IN THE ROCKIES.

Donald, B. C.

Editor RECREATION:

Having received an invitation to visit a friend, who was spending the winter on his ranch, in the Rockies, M—— and I started, hoping to have a week's sport with deer and other game. We left the train on the Canadian Pacific railroad, at Armstrong, for a drive of 15 miles. Our friend, George ——, was awaiting us.

Early the following morning we started out. Jim went alone, taking a shot gun. The rest of us hunted in pairs. My companion and I found tracks so numerous it was impossible to follow any of them, so we simply walked over the scrub-covered hills until noon.

As that was my first experience in deer hunting, I was considerably discouraged. My companion assured me we would surely see deer before long. Although we beat the woods thoroughly all the afternoon, it was only to be disappointed. Toward sunset we started down the mountain to camp.

Two of the hunters were already in, having met with no better success. While talking over the day's hunt, a faint call came from the woods. On going a quarter of a mile in the direction of the call, we saw Jim, seated on a log, the shot gun across his knees, while at his feet lay a buck. Together we dragged the deer to the ranch.

I spent the greater part of the next day following the tracks of a lynx, but without getting a shot. George killed a buck about 4 miles from the house, but could not bring it in alone. At daylight he and I went after his buck.

Now it may seem an easy task for 2 men to drag a deer 4 miles, but it was among the mountains, over fallen timber and through thick scrub. We tied the deer's legs together and ran a pole through them. The ground proved too rough for carrying such a weight, so a rope was tied to the buck's head, while we took turns in dragging him. It was work all the way. Home was reached late at night.

On the last day of my stay, accompanied by another hunter, I took a new route, farther from the ranch. Until late in the

afternoon we tramped over mountains and through valleys. Then a buck and a doe were sighted. The buck was shot, but his mate was allowed to escape. He had magnificent antlers, so the head was cut off. Fitz strapped this to his back, while I shouldered the hindquarters of the deer.

It was then sunset, and camp 5 miles away. Taking a straight course, as nearly as possible, we set out. We traveled until dark through scrub, and at times had to use our knives to cut a passage. Then it was across gullies, up to our knees in snow. At midnight we acknowledged ourselves lost, but after resting half an hour we took up the loads and started again. It was then too dark in the woods to see more than a few feet ahead.

Finally on reaching the top of a hill, we were gladdened by hearing a rifle shot in the valley. We fired an answering shot, which our friends did not hear, for we were so much above them. However, we soon reached the bottom of the hill, where we stumbled into a beaten road that led to the house. Our trials were over, and so ended my week's hunt.

S. H. Currie.

MORE VANDALISM.

Nearly all the beautiful California quails and Oriental quails and pheasants that Frank Alling has spent years in colonizing on Fox island have disappeared, and it is alleged they have been hunted and trapped during the past few months by 2 worthless fellows who have been watching their opportunity to make a raid on the birds.

"It is a long story," said Mr. Alling, "but I am mad through and through, and I purpose doing all in my power to sift this thing to the bottom. Three or 4 years ago 2 worthless fellows arrived from Oregon and lived in a shack near the old tile works. They made a living chiefly by hunting and fishing.

"While I was visiting the island a few days ago several responsible people told me that these 2 men had enticed into their chicken coops the California quails I had liberated and there they deliberately slaughtered every one of them.

"Later I placed 16 Oriental quails, at great expense, on the island, and in all probability they went the way of the others. So I was informed by residents of the locality.

"These fellows left the island soon after this exploit, but they returned about 16 months ago and the residents tell me they could frequently be seen prowling over the island with guns and game bags, but the people had no idea they were slaughtering any of the pheasants that were plentiful around the tile works at that time."

A few days ago Alling took a party of young people over to the island and liberated another coop of full grown pheasants, from the Orient. While on the island he talked with several of the strawberry growers, inquiring how the pheasants were showing up this spring.

"To my surprise," said Mr. Alling, "they told me not a bird could be found on that side of the island in the vicinity of the tile works. A man living near the tile works who had been made deputy sheriff to protect these birds, and had done some fine work in that line before these 2 men arrived, came to my place in Tacoma last fall and reported to me there were over 200 birds about his place back of the tile works. To-day not a bird is to be found. Every one has disappeared and these 2 brutes have again skipped."

Good substantial men, residents of Fox island, feel deeply indignant over the outrage and want active measures set on foot by the county authorities to bring the guilty parties to justice.

"I would not have had it happen for $5,000," said Mr. Alling, bitterly. "For 6 years I have been at work colonizing the island with these birds. They used to come into Captain Mearn's yard and feed with the chickens, they were so tame. All at once they disappeared. A party is under suspicion who has been known to threaten to kill any pheasants that might come into his enclosure. The birds are a positive benefit to an orchard, as they destroy aphis, beetles, bugs, caterpillers and a variety of insects."—Tacoma, Wash., Ledger.

TWO COONS IN ONE NIGHT.

THE SENTINEL.

Fifty weeks of the year I tramp the streets of a city within pistol shot of Boston. When my 2 weeks' vacation comes the Boston & Maine R. R. can not get me to Vermont quickly enough. Last fall I went home in October. Father having written me he had the best coon dog in the State, I looked for sport and was not disappointed.

One night I shall not soon forget. About 2 p.m. the whole family, father, mother, 2 brothers and their wives, visited an uncle, and after a most enjoyable afternoon the girls took the team home while father and brothers stopped and played 7-up until about 9, when we lighted the lantern and started for home.

About half way home a neighbor had a cornfield near his sugar orchard, which was tracked all over by coons, and we were sure of fun there.

We had barely got there when the old dog

gave tongue, and those who have heard the music of a hound on a still, clear night know the symphony orchestra isn't in it. The old dog must have caught her for we heard her squeal, but she got away and treed in a large elm that bent over the brook.

When we arrived the old dog looked up to a big limb that hung over the brook, as much as to say, "there she is," and there she was. My brother cut a club and father took the lantern. They got down on some stones in the brook under the limb, while I slipped a cartridge into a small rifle, and, getting the coon between the moon and myself, let go. Like Davey Crockett's coon she came down and then there was fun in the brook.

When she struck the water my brother struck at the coon, but hit the water, which flew up in father's face. He fell off the stone and such a mix up of man, boy, and coon you never saw.

A lucky blow on the back finally fixed things, when the dog, which had been coolly sitting on the bank, waded in, took the coon in his mouth, waded out and laid her on the bank. She was a female 2 years old. We went back to the corn and in half an hour the old dog started for the sugar orchard and by his song we knew he meant business. We came to him at the foot of an old maple and by the light of the lantern saw where a coon had gone up. As we came up the dog left and whined up another tree about 20 yards away. That meant another coon.

It was so dark in the woods we could not see to shoot, so father proposed to take the coon we had home, as he was too wet to stay, and we could camp until daylight and get the others. The sugar house was close and by clearing out the arch we made a fire. Then one of us took a 30 minute stand at the foot of one of the trees, the old dog taking care of the other, and we waited for daylight, when we shot a fat young coon out of each tree.

Keep on roasting the swine and you may be sure RECREATION will be next to the band in the magazine procession.

TO FEED THE POOR AT MARKET RATES.

It having been reported to me by several subscribers that 4 men had killed, in Glenn county, California, a total of 783 geese in 2 days, I wrote the persons named, asking if the report was true. The replies received follow:

In answer to your inquiry am pleased to say that information you received is true.

F. H. Bushnell, San Francisco, Cal.

The information you have regarding the number of geese killed by 3 friends and me is correct.

Chas. A. Palm, Sacramento, Cal.

The number of geese killed by myself and 3 friends in 2 days' shooting was 623. The total of 783 which you mention was inclusive of those killed by the professional hunters with whom we were shooting.

In case you might consider this too much slaughter, I explain that goose shooting here is chiefly confined to a period from March 1st to, at the outside, April 10th. During that time the birds visit the alkali plains of Glenn county in great numbers to fatten on the peppergrass preparatory to their Northern flight.

The shooting is done from pits, live and dead birds being stooled out and an expert caller occupying an adjoining pit to bring the birds within range. The shooting is not especially easy, the birds getting out of range quickly when the shooter rises.

The shoot mentioned was a phenomenal one, 2 men who shot after us getting only 51 birds in 2 days. None of the birds are wasted, all being shipped to San Francisco where they provide good food for the poorer classes at a low price.

A. D. Harrison, San Francisco, Cal.

You are different from most other California goose hogs I have heard from. The majority of them put up the plea that geese destroy the farmers' crops and that they (the butchers) are actuated purely by sympathy for these ranchmen in slaughtering geese. You and your friends have not even this puny excuse to palliate your crime. According to your own story, the geese were doing nothing worse than eating peppergrass; yet you and Bushnell, Palm, and Coleman go out and slaughter 623 in 2 days.

You do make the threadbare apology about the geese having been utilized for food for poor people, but I would be willing to bet a few dollars that you did not give the geese to these poor people; that you sold the birds and got every penny you could for them. Even if you had given the birds away that would be no adequate atonement for your crime. No matter what such brutes as you may say in defense of such slaughter, the real sportsmen of the country form their own estimate of your cussedness when they read your confession.—EDITOR.

ANOTHER GOOD INDIAN AGENT.

I took charge of this agency the first of July. I know nothing in regard to hunting parties leaving this reservation in the past. I assure you that none will leave in the future. The Cree Indians from Canada have done much damage between the Yellowstone and the Canadian line. They have nearly exterminated the antelope. These Indians were, in '96, rounded up by Government troops and taken back to Canada. They were back to the Yellow-

stone sooner than the troops. This reservation is an ideal game country and I am anxious to do all I can to protect the game. I am trying to impress on the Indians that in hunting they should never kill females. The bucks make good promises and I hope to have good results in this respect. I understand that last fall a small party of white hunters entered the South part of this reservation and killed over 100 deer in one week. I have also learned that one man who formerly lived in this same country, but who is now in the penitentiary, has 160 bighorn heads that he intends to mount. I will be glad to have suggestions from you and I assure you I am in harmony with your organization. I should like to become a member of the L. A. S. if possible.

S. G. Reynolds, Crow Agency, Mont.

ANSWER.

It is not only possible but extremely desirable for all concerned that you should become a member of the L. A. S. A number of Indian agents are already members of the League and have pledged themselves to co-operate with it, as you have done. No class of men in the country could possibly be of greater service than you gentlemen can be, and we need your help. The present generation has seen the buffalo, the noblest of all American wild animals, practically swept out of existence. Also the wild pigeon. The antelope, the elk, the mountain sheep, the goat, the prairie chicken, the wild turkey, the wood duck and the woodcock will follow within a few years unless every possible effort on the part of intelligent men is put forth to save these creatures. The destruction of the buffalo and the wild pigeon is one of the crimes of the 19th century, and I trust no more like it may be charged against the people of the 20th century. If the friends of game protection everywhere would all join the League and co-operate vigorously with it in its work, all of the species last named might be saved indefinitely; but it is only by the rigid enforcement of wholesome game laws everywhere that such a result can be achieved.—EDITOR.

J. E. BARTON DISMISSED.

Congratulations are in order over the final outcome of the J. E. Barton case. He was tried last year in Justice H. C. Lillie's court, in Visalia, for illegally having venison in his possession in the close season. Mr. Barton was, at the time, foreman of a crew of men who were fencing and improving the General Grant Park, situated in Tulare and Fresno counties. On or about July 20, 1901, one of Barton's crew killed a deer and carried it into the main camp. It was eaten by the crew and Mr. Barton took occasion at the table to say he would "fire any man in the crew that peached." F. A. Bullard and I, both rangers, heard of the case. After due investigation we caused warrants of arrest to be issued for both Mr. James Bolton and Barton, charging the first with illegally killing the deer and the latter with illegally having the meat in his possession, as he was foreman with power to employ and discharge the men at his pleasure. Mr. Bolton, on hearing of the warrant, went to the justice's office, and pleaded guilty, paying a fine of $25, but Barton stood trial and the justice discharged him. We were not satisfied with that action and appealed to the President of the L. A. S., sending him a copy of the evidence taken by the court reporter. This cost us $25 out of our own salaries. In due time, notice was also given to the California Fish Commission of the action taken. This season a new superintendent was sent out to guard both the Sequoia National and the General Grant parks, and Mr. Barton was again employed in his former capacity as foreman. Frequently we heard of his bragging about being "in with the push" and that no "damned spy" could work in his camp, nor any man that wore a game warden's badge. In the meantime the L. A. S. had been at work and all at once Mr. J. E. Barton, of the push, was interviewed by Captain Frank A. Barton, the park superintendent, with the result that Mr. "Push" Barton was summarily dismissed and discharged from all park work in California. No greater or better object lesson was ever shown in this section. Now many men are respecting the law; because the L. A. S., the Secretary of the Interior, the park superintendent, and some rangers who are not afraid show that the law must be respected. Hurrah for the L. A. S. S. L. N. Ellis, Visalia, Cal.

MY LAST CHRISTMAS AT HOME.

For years our families had gathered at the old home for each returning Christmas, and all looked forward to each new anniversary with delightful anticipations. At the last Christmas meeting an incident occurred which seemed to me mysterious, and I present it for the fraternity's consideration.

I was recently returned, honorably discharged, from the West Indies, where my regiment had served through the Spanish-American war. I have a hobby. I love to be in the woods with a gun; not necessarily to shoot, but to be where I can see nature unchanged. Accordingly, I proposed to my elder brother a trip to Mount Dumpling for a ruffed grouse. He readily acceded, and together we sallied forth to the mountain, distant ½ mile.

Soon after we reached our campaigning ground we flushed a grouse, which fluttered off among some dense hemlocks. Four times we flushed that same bird. The third time it flew directly toward me, knocking off my hat and startling me so that I did not recover in time to shoot. My brother lost his chance from laughing at me. The fourth time we raised the game I fired, but, beyond a few feathers, had no trophy to show in proof of my skill, though we sought earnestly and long. Reluctantly we gave it up at last and went home.

It was late when we retired that night, but as the next day was Christmas we all rose early, brother first. What was his surprise to find in a sheltered nook of the piazza a wounded grouse, which Zip, the dog, instantly caught and brought to him. It had received a charge of shot in the leg.

Had it not been wounded we should have liberated it after feeding it; but it seemed the part of mercy to kill it.

Was that bird the one I had shot at? If so, why did it come to the house? Was it to verify my claim to a hit?

That was my last Christmas in the dear old home. Its successors have been passed under these far tropic skies. Instead of the pine of my native land I see the fronded palm; and between me and the loved ones rolls the mightiest of oceans. I know, however, that they wait and watch for me; that my place is held for me, and I hope to meet them once more when I shall have finished my course here.

James W. B. Mannion, Manila, P. I.

DEPRECATES ALL KILLING.

Thorold, Ont.

Editor RECREATION:

God bless you for your true sportsmanship! As a boy I was passionately fond of firearms, and managed by self-denial to advance from a Flobert rifle to the proud possession of a 38-40 repeater. As there was no large game here I was restricted to target shooting until I traded the rifle for a shot gun. That opened up a new field of pleasure. The largest bag I ever made was 2 ducks in one day, but I was prouder of those than a St. Clair Flats swell is over his boat load. You can imagine the anger that filled my heart when I read in the A. D. G. H. how 2 men killed 800 ducks in 2 days.

As the years passed I became interested in other things, and kept up my shooting more for health than anything else. At last I received a lesson that cost the life of but one sparrow, yet sickened me forever of slaying birds and animals. I was with a lad who had a Stevens rifle and I watched him as he aimed and fired at a sparrow in the old barn we were in at the time. The little thing dropped at my feet and gasped out its life on the ground; blood spurted from its beak at every breath, and my heart turned sick at the sight. How many innocent lives had I ended just as recklessly. I sold my gun, and from that day to this I have not killed a bird or an animal. I wish I could make a few game hogs feel what I felt as I watched that sparrow die—the utter, needless cruelty of the whole business.

There is no need for a temperate man to reform, and if sportsmen had always pursued your principles there would be no appreciable decrease in the number of feathered inhabitants of the earth.

Keep on in your good work. Every reformer offends people once in a while, and if a man is afraid to live up to his belief he is not worthy to hold any.

Your photo competitions are simply grand. A perfectly natural, well balanced man should enjoy seeing a creature in its health and beauty more than viewing its mangled corpse at his feet.

I hope the presses that turn out RECREATION may be rushed to their fullest capacity.

A Reformed Sportsman, Thorold, Ont.

OFFERS TO BREAK THE LAW.

Some time ago a complaint came to me from Wyoming to the effect that one S. L. Adams, of Jackson's Hole, was killing game in close season and encouraging others to do so. In order to get at the truth regarding this man's actions, I got a League member to write him a decoy letter, which ran thus:

Dear Sir—I have seen your name in a list of guides. Am thinking of taking a fishing and mountain-climbing trip in the Teton mountains this summer. Could you go with me? If so, what would you charge a day for your own services, for saddle horses, pack horses, etc.? My time would be limited to July and August. Do you think it would be safe to kill an elk or a deer during that time? Could you suggest any way in which I could get the heads out of the State safely, without danger of being caught?

Adams walked into the trap with both feet. Here is his answer:

Dear Sir—I could no doubt give you as good service as anyone around here. I have been a deputy State game warden the past 3 years, but my commission ran out the 1st of last February, as there was a change in State Game Warden, and I do not expect an appointment this year. I know the law and how it can be evaded. If you come to me I can fix the matter you mention all right, so there will be no danger. I will not put my plan in writing. If you come will explain to you and guar-

antee no trouble. I could go with you from the 1st of July to the 20th of August, and possibly longer.

Stephen L. Adams,
Jackson, Wyom.

Adams was a game warden 3 years, and now that he is out of a job he turns around and offers to aid others in violating the laws he was paid to enforce. His neighbors should give him about 24 hours in which to get out of the State.—EDITOR.

WERE THEY JACKING?

In the newspaper accounts of the killing of Major Smylie by Judge Storrs, at Blue Mountain lake last summer, I saw no allusion to the apparently undeniable fact that those gentlemen, one a major in the United States army and the other a judge of the United States courts, were breaking the laws of this State and thus the laws of the United States, which they above all others were pledged to observe. There can be no doubt, in view of the facts brought out at the coroner's inquest, that the whole party were engaged in floating, or jacking, for deer. If men holding positions of trust and honor under the government of the country can not be relied on to observe the laws which they have helped to make, can it be wondered at that a class of men such as the natives of the North woods, lawless by nature and ignorant as many of them are, do not observe them? Undoubtedly 75 per cent. of the game taken there during a year is taken illegally. Hundreds of deer are killed every year out of season, while the majority of those taken in season are shot under a jack; yet I can not recall a single case in which an offender was brought to justice last year. Can not something be done to awaken the people of this State to the fact that we have too few game wardens and that the few we have are apparently not doing their duty?

C. B. W., Utica, N. Y.

This communication relates to the killing of Major Charles A. Smylie, of New York City, by Judge C. B. Storrs, of New Jersey. While the sympathies of all good men go out to Major Smylie's family, if he had one, no one can fail to realize that the Major got what he deserved. It is to be hoped the New York State Fish and Game Commission will get a requisition for Judge Storrs, bring him to this State and have him punished as he deserves.—EDITOR.

IF YOU GO BE CAREFUL.

Perhaps some of your readers would like to know where there is good caribou hunting. Alaska is the place, and Pavloff Coal Harbor, about 40 miles from Hugo island, is the particular locality. Am just returning from a prospecting trip there. Yesterday and the day before I saw several bands of caribou feeding, all close to the beach and within a mile or 2 of this stream's regular run. Any sportsman would be sure of getting what caribou he might wish, also brown bear. Take steamer Excelsior from Seattle to Juneau, then steamer Newport from Juneau to Pavloff Coal Harbor, where Captain Moore will land anyone. Sportsmen should bring a small stove to burn coal, as there is no wood in the country, but plenty of coal.

Paul Buckley, on board Newport.

Sportsmen who may be prompted to visit the Alaskan peninsula to hunt caribou there should remember that the Lacey bill for the protection of game in Alaska has passed both houses of Congress, has been signed by the President and is now a law. Under the provisions of this act, no man is allowed to kill more than 4 caribou, 2 moose, 2 walrus, sea lions, sheep, goats or large brown bears, or more than 8 deer, in any one year. No females or yearlings of moose, caribou, deer or sheep may be killed at any time. The sale and shipment of skins or heads of big game animals is prohibited at all times, under heavy penalties, and it is the duty of all marshals and deputy marshals, collectors, and deputy collectors of customs in Alaska, and all officers of revenue cutters, to assist in the enforcement of this law. Alaska is a big country, but these various officers reach all habitable portions of it, and it will not be safe hereafter for any man to attempt to violate any provision of the new game law.—EDITOR.

A CALIFORNIAN HERD.

There was a duck hunt last Tuesday that will be remembered for some time by the members of the Salt River and Island gun clubs. The day was fine and in some places ducks were plentiful. E. Larsen, of the Island, lead with 37 ducks. H. Bouchard was second with 36. In the Salt River team Bert Matthews had 29; Wm. Clark 27. The Island had 18 men and Salt River 17, and the official count was Salt River 293, Island 257. As this was the first time these 2 clubs met in a friendly shoot, and as there has been some boasting on both sides, Salt river is highly elated over the victory. The following score was made: Salt River—Bert Matthews 29, C. H. Matthews 12, T. Boyd 22, W. Boyd, 22, X. L. Boyd 21, G. Haywood 19, Bert Leighton 23, D. Reas 12, G. Clark, 16, W. Clark 27, Floyd Fuller 17, B. Haywood 16, C. Peyton 13, W. Damon 17, A. Morrison 4, E. Haywood 12, H. Briggs, 13. Island—R. H. Flowers 19, W. Bouchard 16, H. Dillon 9, E. Larsen 37, H. Bouchard 36, E. West 10, A. Rasmussen 6, L. Hicks 6, T. Rasmussen 4, A. Halley

2, G. Hansen 4, B. Goble 32, J. Goble 32, J. Elliott 3, E. Rasmussen 9, R. Neil 14, J. Niebur 27, C Andersen 3—Ferndale, Cal., paper.

Wm. Clark admits, in answer to my inquiry, that he killed 27 ducks and adds that he has done better on other occasions in less time. Doubtless the other scores are correct as given. To help these rooters remember their hunt I give the record more publicity than it could have in the columns of a country paper. Several hundred thousand good citizens will learn by it that there is a drove of 35 duck hogs at Ferndale, Cal., tagged as per above list.—EDITOR.

AMONG THE ORANGES.

Brother Al and I left home October 17th, and came here to fish, hunt, read, write, rest, loaf and recuperate.

We arrived at Bartow, our railroad terminus, Thursday evening. From Bartow to this city is 26 miles Southeast. By trolley the distance can be covered in about 3 hours; by railroad in less than an hour. As yet, neither are contemplated, therefore, we came in a wagon, drawn by one horse, and covered the distance in 7 hours and 49 minutes. We lost 11 minutes feeding man and beast, *en route*. The road is through pine woods most of the way, and sandy all the way. To induce the horse to make better time, I walked part of the distance and not wishing to mortify the beast, sat down after walking a mile or 2 until he caught up. About 4.30 p. m., we came to anchor and were welcomed by Mr. and Mrs. S. W. Carson, with whom we intend to make a protracted stay, provided we suit them and our money holds out.

Am writing this in my library, a tent pitched in the front yard. Across the road is the frost-proof orange grove, of over 100 trees, 40 of them in full bearing, as are also 30 grape fruit, several guava and kumquab trees. This city has a population of 16 men, women and children, 7 dogs, 8 cows and 20 chickens. There are 6 lakes within 2 miles of my library. They are the most beautiful lakes I ever saw; not large, but just large enough to afford all the good fishing for black bass that anyone would or could desire.

S. H. S., Lakemont, Fla.

FULLERTON'S GOOD WORK.

We are going to prosecute Dr. Hoyt, of St. Cloud; F. W. Randall, Superintendent St. Cloud Reformatory, St. Cloud; Judge Steele, Judge Simpson and Dr. Simpson, of Minneapolis, for shooting on the White Earth reservation before the lawful season; namely, September 1st.

We arrested Walter H. and S. P. Pollman, of St. Louis, Mo., non-residents, who came to the State and tried to shoot without a license. The next time they come to Minnesota they will take out non-resident licenses. Also William Campbell, George Jones, and James Brown, all of Oshkosh, Wis., were induced to part with the necessary fee of $25 each.

The great trouble we have to contend with in Minnesota, is men who call themselves sportsmen who sneak in here without conforming to our laws. We have let them off lightly so far, but in the future we will not only compel them to take out licenses, but will confiscate everything they have. Perhaps after that they will be good.

I am glad to say for the benefit of the readers of RECREATION that the Lacey law is doing a world of good in regard to shipping. There are some men who go to the Dakotas and this State and try to sneak trunks full of game home with them. They will deeply regret the trip when Uncle Sam gets hold of them. We are furnishing information now to Dr. Palmer, who is doing such good work as the Assistant Chief of the Biological Survey, and he is helping us in cases where the game was shipped out of Minnesota.

Sam F. Fullerton, St. Paul, Minn.

PUT A BOUNTY ON FOXES.

Game in Massachusetts has never before been so scarce as at present. There are 2 reasons for this; too many hunters and too many foxes.

It does but little good to appeal to hunters through sportsmen's papers or magazines. The law must say when they can hunt and how many birds each man can kill. In this State shooting is permitted from September 15 to January 1. For 3½ months the coverts and swamps are hunted until it is a wonder there is a grouse or woodcock left. Two months would be a long enough open season under present conditions. The new Sunday law has helped some. There is but little shooting on Sundays now compared with 2 years ago.

No man can kill RECREATION'S limit of 10 birds in this county. If a good shot gets 5 birds in a day he is doing well. Five years ago grouse were sold in Boston for 70 to 80 cents a pair. To-day they bring $1.50 to $1.75.

Foxes do almost as much harm as hunters. I have known whole flocks of game to be destroyed by foxes. Foxes are thick here. On every snow one can see where they have followed grouse and rabbit tracks. If the State would pay a bounty of 50 cents for foxes the farmers would dig them out in the spring. I know one man who got 87 foxes, 2 years ago, with one fox terrier. Last year grouse and

rabbits were thicker in that part of the county than in any other. With a shorter open season and a bounty on foxes, our game would increase.

Dr. S. B. Keith, Palmer, Mass.

GAME NOTES.

John F. Pletsch, of the firm of Pletsch & Sutton, who, together with the other members of the firm, was arrested by deputy game warden L. C. Graham on the charge of having for sale quails which had been killed out of season, pleaded guilty before Justice Lowry, and was fined $25 and costs.

The other members of the firm, L. K. and G. L. Sutton, were dismissed on payment of the costs, as the evidence disclosed that they had no knowledge of the purchase or possession of the birds.

These were the first cases which Deputy Graham has prosecuted for the infraction of the game laws, and he feels much elated over his success in securing a conviction. Several other persons whom he had arrested for violation of the fish laws were fined $25 and costs by Justice Helwagen. Mr. Graham has received letters from a number of hunting and fishing clubs heartily commending his course.—Columbus, O., paper.

The game business is really not what it used to be. I look for many retirements from that field of endeavor within a few years.—EDITOR.

I had planned a little surprise for my Camp Fire friends in the way of some alligator steak, but since my arrival the weather has been so cool and the rivers so high I have not seen a 'gator to shoot at. Fishing is poor on account of the weather, so there is not much to do. A flock of quails run around the house almost every day and they are extremely interesting to watch. There are a good many ducks on the bay, so we have all we want to eat, but we do not shoot any more than we can use. The orange groves are looking fine, and the backward season has been a good thing for them, preventing the new growth from starting and being frozen. Next year, if we get no freeze, this section should send a large crop of oranges to market. H. H. Todd, Roseland, Fla.

Four years ago you roasted me to a turn. Since then I haven't deserved a roast. I haven't the slightest sign of a bristle; not one; and to show my appreciation of the good work your magazine is doing for game protection I hand you herewith an article which I hope you may be able to use in RECREATION.

John M. Fairfield, Denver, Colo.

The story will be printed in a future issue.—EDITOR.

In district court Henry Greenwood, a farmer living in Sturbridge, was found guilty and paid his fine of $100 for shooting the deer which was shot at Leadmine and died after being run down by dogs. Other parties were arrested, charged with being accomplices, but as no evidence was shown to implicate them, they were discharged.—Southbridge, Mass., paper.

Well, as long as the chief culprit got his dose, we will not worry about his followers.—EDITOR.

Turkeys are fairly plenty here. Grouse, quails, woodcocks and squirrels are scarce. We have a few deer and bear. The law should either prohibit the killing of does or set the limit at one deer per man. Game Warden Bernier, of Harrisburg, successfully prosecuted several violators of the deer law last winter. Here we were less fortunate, being unable to secure positive evidence.

J. J. Brennan, M. D., Oval, Pa.

We have more quails here than are found in any other section on the Eastern shore of Virginia. When we had that hard freeze 4 years ago I fed the quails in this vicinity ,and last February I did the same. I am sure we have over 500 coveys within 5 miles of town.

W. T. Gladding, New Church, Vt.

Last year Harry Rash, a rancher on Blacktail Deer creek, captured 2 calf antelopes, a male and a female. He keeps them enclosed in a wire fence yard. When I last saw them, which was in August, their diet was chiefly willow leaves. Rash has refused $50 apiece for the animals.

Carl E. Price, Dillon, Mont.

Game and fish are abundant here, but hogs are, too, and kill in and out of season, unmercifully. Fish are nightly dynamited.

We have pot hunters galore that do not think they have had a good day's sport unless they bag at least 50 quails a day apiece.

D. Bosley Wapanucka, Ind. Ter.

Should any of the readers of RECREATION wish to obtain information regarding hunting and fishing in the St. Clair river country, I shall be glad to answer any questions.

W. A. Miller, Detroit, Michigan.

Already many thousands of people are wondering what they are going to get for Christmas presents. Other thousands are wondering what they are going to give their friends. If you wish to make a present to a man or boy who is interested in shooting, fishing, amateur photography, or nature study, give him a year's subscription to RECREATION. Nothing you can possibly buy for $1 would give him so much pleasure as 12 issues of this magazine. Come early and avoid the rush.

LETTERS FROM A FISH HOG.

Petoskey, Mich., June 30.

Dear John—I've been over on Walloon lake most of the time for the last 6 weeks. Greatest bass fishing I've had for a long time. Not so many bass in the lake, but I struck the spawning season. Water's so clear you can see 'em right on the beds and they'll take anything you throw at 'em. Sometimes I got 15 or 20 in a day, and I shipped several boxes down to my friends along the G. R. and I. every week. Next year I want you to come up with me about the middle of May, and we'll get every bass in the lake. Folks around here will not squeal, so you needn't be afraid.

Yours truly, J. Dixon.

Boyne Falls, Mich., July 10.

Dear John—You ask me about the trout fishing in the Boyne. It's a fair stream, but you are too late in the season. I slipped in here a week before the regular season opened, struck the river a few miles down, and fished it to within 2 or 3 miles of Boyne. Got the biggest haul you ever saw. Of course I didn't dare take 'em into Boyne, so I hired an old farmer to box 'em for me and haul me over to Clarion, and I got out of the State with 'em in short order. I'll give you a tip next spring and we'll try it together.

Sincerely yours, J. D.

Allenville, Mich., July 25.

Dear Johnny—Been having the greatest sport with pike and muskalonge you ever saw. Brevoort lake is full of pike and they are tame as pigs. Come right up to the side of the boat and take your spoon under your very eyes. It's no trick at all to get a dozen or 2 on one trip, and big fellows, too. I stayed 10 days and went out every day. We just had to bury a lot of 'em in the ground to keep 'em from stinking us off the lake, for we couldn't eat 1-5 of what we caught. I didn't bother with any reel, for you don't have to cast any distance to get 'em. I just took a big cane pole and a heavy line, and when one got on I yanked him up by the boat and knocked him in the head with a club. If he jerked off I flung out and hooked another. It's a regular butcher shop. You must come up with me next year and we'll have grand fun.

Yours as ever, J. D.

Brevoort, Mich., August 8.

Dear John—I was going South after writing you from Allenville, but I got on to something that I couldn't let slip. There's a little lake up in the woods from here where the deer are almost as thick as blackberries, and if you stand in right with some of the natives you can kill as many deer as you please. I got a guide and went over one night with a jack light. We got 2 deer in less than 2 hours. One of 'em was a good sized buck and the other a doe. We got what meat we wanted and hid the rest. The guide will keep the hides safe for me and I guess I'll get 'em out this fall without any danger. All I want now is a good haul of trout from some of the streams around here and I'm going home.

Yours, etc., J. D.

St. Ignace, Mich., August 10.

Dear John—I found my trout all right. There was no one around to bother himself as to how I caught them. Sunday last I got a lumberman to go out with me and we netted 2 big holes. I am shipping you a box to-day with 2 dozen big ones in it. The law will not allow one to ship them out of the State, so I can't send them directly to Toledo. I will send them to Jones, at Alexis, which is over the Michigan border, and you can drive out and get them. Yours sincerely, J. Dixon.

DISGRACE THEIR PROFESSION.

The following item appeared in the Inland Ocean, of West Superior, Wisconsin:

Professors E. W. Walker and C. A. Donnelly, of the Normal school, returned from Pratt, Wis., where they have been enjoying a few days' fishing. They caught 410 trout during their trip and report a pleasant time.

I wrote these gentlemen for confirmation of the report and received the following reply

Yes, it is true. Professor C. A. Donnelly and I caught 410 trout recently. I do not feel that the accomplishment is unusual, however, as we spent 4 days in catching them. Nor were they large. The largest measured 13 inches in length. I had no scales for weighing. The wonder is not that we caught 410, but that we did not catch twice that number. Expert anglers would have done so.

E. W. Walker, West Superior, Wis.

So you averaged 50 trout a day and boast of it! You say expert anglers would have caught twice the number you did. No man who would take even as many as you and your friend did is entitled to the name of angler. That is synonymous with gentleman, and you have by your conduct ruled yourselves out of that class. So does any man who slaughters fish as you did and as you say expert anglers would

have done. Suppose 100 men should fish the stream you speak of, in the course of a season, each staying 2 days and each taking 50 trout a day. Such a case is scarcely possible, but assuming that it might be done, what would be left for others who might see fit to fish there in future? Can you not easily realize that the streams would be completely cleaned out? Does a farmer kill all his chickens, ducks, turkeys, sheep, hogs or cattle in one year, or does he save a few to propagate for future years? What would be thought of a man who, simply because he had a chance to sell or to give away poultry to his friends, would go into his barnyard and kill every fowl he found there? Would you not consider him a fool? Most assuredly; but in that case, he would be dealing with his own property, and would not be committing a crime against his neighbors. Men who kill all the fish in a stream, or who do their best to accomplish that, are not only fools, but criminals in the eyes of their neighbors, and should be dealt with accordingly.—EDITOR.

THE MONTANA KIND.

I hand you herewith a clipping from our daily paper, and hope you will make good use of it. The persons mentioned have been heard from before, and, in consequence, our fish and game is rapidly disappearing. These fellows think nothing of catching 100 fish a day.

L. A. S., Missoula, Mont.

The clipping follows:

The Goober Club, made up of J. A. Hartley, Ned Dorman, H. Blumberg and George Steinbrenner returned yesterday afternoon from Rock creek. They went out to the creek last Thursday afternoon and brought back 362 trout. The reporter is from Missouri, but the story is absolutely truthful.

I wrote the persons mentioned, and received the following replies:

The information you received is correct, as far as number is concerned, but the time was 2 days instead of one.

Geo. L. Steinbrenner, Missoula, Mont.

While the number of fish caught by our party was 362, the time was 2 days instead of one, which would make an average catch of 45 fish a day. These were brook trout, ranging in size from 7 to 14 inches long. In this part of the State we consider this a medium catch, as the streams abound with these trout. While not a member of the L. A. S., I read its organ, RECREATION, and approve the manner in which it strives to preserve fish and game.

E. S. Dorman, Missoula, Mont.

The information you received is correct. My friends succeeded in catching 360 and I caught the remaining 2.

Harry Blumberg, Missoula, Mont.

There seems to be one decent man in the crowd. Mr. Dorman says he approves of the manner in which the League strives to preserve the fish and game. So far, so good; but if you approve of the League's efforts, why not participate in them instead of fishing from daylight to dark in order to try to clean out a stream? Why not stop when you get a decent basket of fish. Why not induce your companions to do likewise? You should all be ashamed of yourselves, even the man who claims to have caught only 2 fish. That story of his will bear a liberal quantity of salt.—EDITOR.

MICHIGAN SHOULD PASS LIMIT LAW.

P. L. Lamoria and Menzo Gates returned from a day's fishing near Alexander with a big lunch basket full of handsome brook trout. The crowd applauded the catch and Paul and Menzo smiled as they walked home lugging the basket and a heavily loaded wash boiler. The boiler was filled with trout, also, and they did not take the trouble to count them but they say their day's catch amounted to about 2 bushels of speckled jewels.—Sault Ste. Marie (Mich.) News Record.

On inquiry as to the truth of this report I received the following reply:

That which you have heard in regard to myself and a friend catching 2 bushels of speckled trout is the truth. We started to fish at 6 in the morning and at 1:30 p.m. we were on our way home. Paul Lemoria is the name of the friend who accompanied me on that trip. We made our catch on Pine river, Chippewa county.

M. Gates, Sault Ste. Marie, Mich.

You evidently used either dynamite or a net to catch such a large number of trout in 7 hours. Of course if you had used hooks and lines you would have yanked the fish out as fast as possible. Such degraded brutes as you always do that. They care nothing for the sport of fishing. They simply fish for count and for the frying pan. Still I do not believe that in any stream in the country trout are plentiful enough to enable 2 razorbacks to take a bushel of trout in one day. It is to be hoped Michigan and all other States will soon enact laws limiting the number and the aggregate weight of a day's catch of trout or other game fishes; and a jail penalty should be provided for violators. This is the only way to curb the brutal instincts of such swine as you.—EDITOR.

MIGHT LIVE IN WARM WATER.

Will you kindly advise what species of fish would be best adapted to water of a temperature of 80 degrees? We have an artificial lake covering 7 acres, with 5 to 18 feet of water, fed by natural springs;

but owing to exhaust water from steam pumps the lake water is kept at a high temperature in summer and seldom freezes in winter. J. M. Sloan, Crown, Pa.

ANSWER.

It is doubtful if you can find a fish of much value that can live in water whose temperature is 80 degrees continuously. Not only is the water in itself too warm, but the fish are enervated and rendered liable to attack by various diseases. The common bullhead would perhaps do as well as any species you might select. It would reach a weight of half a pound or more in such a pond and is a good food fish. If you should not wish to try bullheads the next best species is the bluegill (*Lepomis pallidus*). It reaches half a pound, is an excellent food fish, thrives well in small ponds and might do fairly well in water of that temperature. Other species that might be tried are the rock bass (*Amblophlites rupestris*) and the large mouth black bass. Any of these species can probably be obtained in the sluggish streams or ponds in your neighborhood.—EDITOR.

CAUGHT 600 TROUT IN 3 DAYS.

Mr. and Mrs. A. W. Ellis, Mr. and Mrs. William Kitchen, Miss Amy Haines and Harley Wood returned last Friday from a fishing trip on Trout creek. The last named was appointed press agent because of his undoubted veracity, and from him were secured the following facts—also a dozen trout, as corroborative evidence. The party fished 3 days and caught 600 fish, about half of which were also secured the following facts—a dozen measuring more than 6 inches. Many not more than 5 inches long were filled with eggs.—Sumpter (Ore.) Miner.

Coquina, how do you like that slaughter of minnows? The above party averaged only 100 fish each, so if they were out a week or 2 the number caught was not excessive. It is the size of the fish taken that every sportsman will protest against. J. B. N., Tacoma, Wash.

I do not like it at all. In the first place, it is probably a newspaper fake as to the number of fish taken, but we may safely conclude that there is no exaggeration as to the size of the fish, for the people who took them would have been glad to say the smallest weighed a pound if they had been in a position to do so. I assume Oregon has a 6 inch trout law. If not, she should enact one at an early date. If there be such a law in effect, then these people should be punished as they deserve.—EDITOR.

THE LARGE MOUTH BLACK BASS.

In the several bays and ponds near this city there are numerous large mouth bass which nearly all anglers persist in calling mud bass. They look to me like Oswegos, and I am anxious to know if there is a third variety of bass of similar characteristics.

L. B. Hawley, M. D., Rochester, N. Y.

ANSWER.

The fish to which you refer and which many of your anglers call mud bass is undoubtedly the large mouth black bass, or Oswego bass. The best common name for this species is the large mouth black bass, but it is known in different parts of the country by many different names, as for instance, Oswego bass in New York State, mud bass in various places in the North, straw bass in Northern Indiana and elsewhere, chub and welshman in Virginia and North Carolina, and trout and green trout throughout the South. There is only one other species of black bass, namely, the small mouth black bass.

For full descriptions of these and all other game fishes of this country see "American Game Fishes," edited by G. O. Shields.—B. W. E.

IT WAS A GERMAN CARP.

A subscriber recently sent me a clipping from a weekly paper of Monticello, N. Y., which stated that Mr. Crossman, of Cochocton, caught, in the Delaware river, a wall-eyed pike that weighed 17¼ pounds. I wrote Mr. Crossman as follows:

I am informed you recently caught a wall-eyed pike which weighed 17¼ pounds. Will you kindly advise me if this is true. It sounds like a newspaper yarn, and I should like to know if the fish really weighed that much.

Mr. Crossman replied:

The fish was a German carp weighing 17¼ pounds, taken from the Delaware. I have caught wall-eyed pike weighing 12 pounds and am assured that pike from 17 to 20 pounds in weight are in this vicinity. A. Crossman, Damascus, Pa.

THE GRUNT OF A FISH HOG.

Michael Karpen, of Chicago, a member of the firm of S. Karpen & Bro., manufacturers of furniture, went fishing. On his return he had himself photographed with his catch and sent the picture to a trade journal. Unless there was something the matter with the camera, Mike is not exactly pretty; in fact, he looks the fish hog he proclaims himself to be. Lest there should be any doubt as to his status, he sent with the photo a lovely poem of which the following is a sample:

"Mike Karpen once a-fishing went,
To catch fish his mind was bent.
A great fisher before the Lord is Mike:
He catches whales, carps and pike.
Here you see him, to the right he stands
With a big string of fish just pulled on land."

NIBBLES.

While walking along the shore of Calumet lake one day I saw 2 well dressed men come in off the lake from fishing in a boat. As they neared the landing some friends called to them, "What luck did you have to-day?" The fishermen answered, "Fine! Could not be better! We caught about 150 sunfish." I saw the fish lying in the boat. The 2 men got out, locked the boat and started away, leaving the fish lying in the boat, in the hot sun, to dry and spoil. Another man said to the fishermen, "Are you not going to take the fish along?" "No," they said, "we just wanted the fun of catching them." I do not know the names of those fishermen, but they ought to be locked up about 2 years apiece, to learn what true sport is.

Herman C. Beahls, Roseland, Ill.

What is the best food for shiners when they are kept in confinement for winter fishing? Will they live in close confinement?

Frank P. Matteson, Davisville, R. I.

ANSWER.

Shiners kept in confinement for winter fishing are not apt to eat or to require much food, especially if kept in cold water. When earth worms can be obtained they form the best food for minnows. Bread crumbs and hominy, soft and chopped sufficiently fine, are excellent and will be taken readily by most minnows when at all hungry. Small bits of meat are also excellent.

In feeding fish in a live-box care must be taken not to put in at any one time more food than the fish are able to clean up; else the box becomes foul and unhealthful.—EDITOR.

Byron and Foster Burch and Arthur Schoppe caught over 500 trout one day this week.

When my attention was called to above clipping from a New Hampshire paper I wrote to the men named, asking if the report was true. The following answer was made:

The report that 2 friends and I caught over 500 trout in one day is true. We began fishing at 8 a. m. and quit at 3. We had the nicest mess of fish that has been caught here this year.

Byron R. Burch, Canaan, Vt.

I take it for granted your bristles show clear through your clothes.—EDITOR.

A subscriber in Orion, Mich., sends me a clipping from a Detroit newspaper containing a string of fish stories. The writer of the letter says, "The fellow's story would have been all right if he had left out the picture that shows him to be a genuine fish hog."

The picture referred to shows this bristleback standing up behind a string of some 50 odd trout, and if ever a man showed villainy in his face, the one in this picture does. If Michigan lawmakers do not soon pass a law to restrain such butchers as this one, there will be no fish left in their streams.—EDITOR.

Large trout are sometimes taken on small flies. Last summer I was fishing in the upper waters of the Beaverkill at twilight with 2 friends, when I took a 5 pound brown trout, measuring 23½ inches, on a royal coachman, No. 10 hook. It took me 25 minutes to bring him to net. I used a 5 ounce split bamboo rod and a fine leader, tied with single and water knots. I am told this is the largest trout ever taken with a fly on the Beaverkill.

Willard Spenser, DeBruce, N. Y.

This State has planted a great number of German carp in many of our inland waters. These fish destroy the wild celery and rice on which game birds thrive; the result is that duck shooting is here a thing of the past. Prevent, if you can, other States from making such a mistake and planting a pest which can never be exterminated.

G. E. Schulz, Milwaukee, Wis.

You will see in the lower left corner of the picture on page 442 the line "A Day's Sport on the Yukon." The photographer should have said a day's slaughter and he should have branded the letters G. H. on each man's mug before making the prints. The Alaska game bill was not passed soon enough. These brutes should have been locked up in a military prison 30 days as a proper retribution for their dastardly work.

Are you beginning to think what you can give your friends for Christmas presents? What could be more desirable than a yearly subscription to RECREATION? It is one of the most practicable and useful presents you could possibly give a man or boy who is interested in nature study, fishing, hunting, or amateur photography.

All boys instinctively love the woods. RECREATION teaches them to love and to study the birds and the animals to be found there. If you would have your son, your brother, your husband, or your sweetheart interested in nature, let him read RECREATION. It costs only $1 a year and would make him happy twelve times a year.

GUNS AND AMMUNITION.

Anybody can shoot all day, but a gentleman will quit when he gets enough.

SERMON ON THE MERLIN.

C. B. MAXWELL.

Verily I say unto ye, Jews and Gentiles, there was a rich man named Bellard that said to himself, "I will make a gun, yea, verily, I will make many guns. I will make good guns, so that the shepherd may have means to protect his flocks, the pioneer may have means to secure his living, to protect the widows, the orphans, from the savages and the wild beasts. I will make guns to shoot once, and set an example in moderation that it is not manly to slaughter for the sake of seeing blood run. Yea, verily, I will make my name great among men of many nations."

Then, after much prayer and fasting, he was rewarded with great success, and his name was blessed, and his fame was spread over the land, and his guns, for their many good qualities, were much sought after from far and near.

But in his own good time the Lord took Bellard to dwell with His elect, and said, "Well done, thou good and faithful servant."

Then again it came to pass that an ungodly man, named Merlin, coveted the honor and the riches of the good servant Bellard, and said unto himself, "Behold, I will build up a great name for myself. I will be honored of men. I will improve on the handiwork of the misguided Bellard." And it came to pass that this ungodly man did go to the widow and the orphans and did trade them out of their inheritance. Then went he to the synagogue and stood up to be admired of men and posed as a wise man, and did pray both long and loud, with much self-praise. He meditated both long and thoughtfully and said, "I will make a gun that will shoot many times, that the veriest game hog may exterminate all the creatures that creep and walk on the earth; and I will make my domain a howling wilderness. I will have the advantage of my predecessor's reputation and with my vast knowledge will make a gun that will exterminate whole armies at one discharge; yea, verily."

Then it came to pass that the ungodly Merlin sang the praise of his guns from the street corners, from the house tops, from the hill tops, with much loudness of mouth, and many were deceived and followed the false prophet.

Then it came to pass that the wise men of the nation said, "Wherefore this man maketh much noise and deceiveth many, let us investigate." And the wise men and the priests weighed Merlin in the balance and his goods, and his men servants, and his maid servants, and his ox, and his ass, and found them wanting; yea, muchly.

And it came to pass that the nation, because of his loud mouth and much bragging, did condemn the ungodly Merlin.

Then in his wrath he said, "The nation be dod dund. I will not repent nor improve my evil ways. Verily, I will force them to bow down and worship me."

Then it came to pass he was loudly cursed by men of all nations as a false prophet, and his guns came to be a sign of damnation to the owner thereof. And many men lost their religion by trusting to the handiwork of the false prophet. And again I say unto ye, many men lost their souls by blaspheming, because in their ignorance they had purchased of his goods. And when a wise priest and a leader of men named Coquinut, did pray with Merlin and try to show him the evil of his way, and with tears in his eyes did beseech the said Merlin to follow the noble example of his predecessor, the ungodly Merlin did blaspheme, and because of his hardness of heart say, "Get thee behind me, thou ex-game hog, and get a mighty move on, or I will smite thee off the face of the earth, and all thy tribe of sportsmen, with my jaw bone, as Samson did with the jaw bone of another ass."

Then the sportsmen of the nation rose up as one man and said, "Down with the hypocrite!"

And it came to pass that in the last days the Lord, who loves justice, did consign the ungodly Merlin to the bottomless pit. And there was much rejoicing throughout the land thereat. Amen.

HIS FAVORITE LOADS.

Nothing but a sheet of paper or some similar target will tell the true story of a charge of shot. A few lucky shots at game prove nothing. Of course, your target must be backed with something to test penetration. For that purpose I have never found anything better than soft, clear pine.

In judging smokeless powders, strength, quickness, cleanliness, noise, recoil, smokelessness and pattern are to be considered. Bursting strain is not considered, for when properly loaded none of the high grade powders are dangerous. E. C. makes too much smoke, too much noise, has too much recoil, is rather slow, and load for load gives less penetration than most other bulk powders. While liable to bunch

small shot, it is as good as any at long range with coarse shot. The same faults exist in Schulte, except in pattern. Schultze has also a disagreeable smell. Dupont is all right, except a little too much smoke and a good deal too much noise. There are 2 points in which L. & R. needs to be greatly improved; unburned grains are left in the barrel and it makes altogether too much noise. Blue Ribbon I discard as worthless. It has no force. I shot a red squirrel at about 4 rods distance with No. 6 shot. It killed him dead as a doornail. I filled him with shot and knocked him 4 feet away from the log on which he was running, but not a shot went through; they lodged against the skin on the other side. I call that a decided lack of penetration. I have found that Blue Ribbon powder will cause pitting in gun barrels unle s extreme care is taken in cleaning the weapon.

Troisdorf has the least smoke of any powder I ever used, except Walsrode. It makes little noise and is as quick as the quickest, with but light recoil. It will put as many shot in a 30 inch circle at 40 yards as will E. C., and with much better distribution. However, it is a soft powder and requires careful loading. If loaded in the following manner it will give as good results in pattern and penetration as can be obtained from any powder: Winchester's Leader shell, 2⅝ inch; 2¼ or 3 drams powder, never more for a 12 gauge gun. On the powder put a trap wad with just 35 pounds pressure, then a ¼ and ⅛ inch black edge wad. Use not more than 1⅛ ounce shot, and if as coarse as 6's, 1 ounce is better. Cover with a thin top wad, and crimp well. A load that will kill a woodcock anywhere inside of a 3 foot circle at 16 yards is 2½ drachms Troisdorf trap; 2 ⅛-inch black edge wads. Take B thickness card wads and punch the center out with a 32 calibre wad cutter; make a dipper that will hold ⅜ ounce of shot, No. 9 or 10. Put in a dipperful of shot, then a punched wad. Do this 3 times until you have 1½ ounces of shot in your shell, cover with a top wad, and crimp. Using a cylinder bore you will get your bird at 25 yards if you aim within 2 feet of it.

To load buckshot: Take small size buckshot, 2¾ drams powder, 1 trap wad, 1⅛ inch white felt and 1 A thickness card wad. Put in about 2 deep of No. 10 shot, then buckshot, placing them in the center. Cover with fine shot and repeat until you have 9 or 12 buckshot in your load, cover the last 3 wads and crimp. Fired from a medium choke gun at 35 yards, this charge will put all the buckshot inside an 18 inch circle.

W. E. Stoddart, Montpelier, Vt.

CONDEMNS THE REPEATING SHOT GUN.

Jamesville, Mo.

Editor RECREATION:

I have noticed many articles in RECREATION in regard to the pump gun. Some writers denounce it as a game hog's weapon without going into details. Then someone will deny the charge and defend the weapon by such arguments as: "It is the strongest shooting gun in the market. I keep my Parker to look at; my pump gun to shoot. For a target smasher and game getter it discounts the double barrel."

I can not understand how any true sportsman and advocate of game protection can use or defend this monstrosity among guns. If some one should invent a gun that would throw a continual stream of shot at a flock of birds until they were out of sight there would be instant protest from game protectors, and probably laws would be enacted prohibiting the use of such a weapon. Yet who can deny that the pump is a near approach to such an engine of destruction; and is it not safe to assume that a great majority of the present users of pump guns would gladly adopt a still more murderous arm? Many users of this weapon give us as an excuse that they are the only first class gun obtainable at anything like the price. That is not the case; there are many first class hammer guns to be had at prices ranging from $16 to $25; among them are the Ithaca, Syracuse and Forehand. For durability and shooting qualities the guns named are the equal to any made at any price, hammer or hammerless.

Some advance the theory that the pump is a humane weapon, enabling its user to quickly put wounded birds out of misery. Nine out of 10 users of the repeating shot gun will pump lead at a flock of birds until they are out of sight or until the gun is empty. The first 2 or 3 shots kill most of the birds hit. The last 3 make more cripples than could ever be made with a double barrel. The man with the double barrel gets in 2 shots in quick succession at short range, thus dropping the highest possible per cent of hit birds and before he can reload the remainder are out of range. In chicken shooting, when a covey is found, only the first 2 birds that take wing are killed; while if a pump gun was used there would be no chance for the remaining birds to escape while the hunter was breaking his gun and reloading. No, the hog behind the pump stands with finger on trigger and 5 charges still at his command and it is a cold day if any birds escape.

George Harne of Syracuse, New York, was granted a patent on January 14th for an automatic shot gun. This gun is prac-

tically the same as the pump gun except that the forward and back movement is automatic, the recoil being the motive power. Another man has invented a similar contrivance. The hope is already being expressed among the better class of sportsmen that these guns will not be allowed to come into general use. There should be a law prohibiting the use of both. Failing in that, it is still the duty of every true sportsmen and game protector to raise his voice against the use of such murderous weapons. Double Barrel.

This is as severe a criticism as I have ever printed of any gun or cartridge. Now you watch the Winchester Company and see if it withdraws its ad from RECREATION, or brings a libel suit against me, *a la* Tommy Peters and Paddy Marlin.—EDITOR.

A NEW THEORY.

I was much interested in the article from Edmonton, written by H. B. Spratt, but was sorry you did not roast him as he deserves.

I use a 16 bore shot gun and have a .303 British rifle. I like the 16 bore the better, as the shot flies faster and does more effective killing. I shot a mallard duck at 95 measured paces and hit 2 more in the same flock. I do not like to see men pick their shots. I never shoot at birds less than 60 yards off, as I want to give them a chance to get away. Of course I often hit and lose them, but that is the only true way not to be a pot shot or a game hog.

Last fall I shot a buck and doe, in the Beaver hills, with one shot. They were standing side by side and the bullet from my .303 went through both, breaking their shoulder blades. On the same day I killed 2 more deer with 2 shots. I quit then, as I am no hog.

W. E. Heist, Alta, Can.

ANSWER.

It would seem that a man would have to push pretty hard on his gun to kill a mallard at 95 steps, unless they were mighty short steps. You say you measured the paces, but you do not say how long each pace was. It might have been only a foot. In that case, it would not have been a notable shot; but if you stepped 32 or 34 inches each time, that would make your story really remarkable. Of course accidents will happen, if you keep on shooting, but if you have a gun that will kill regularly at 80 yards, there are thousands of men who would like to buy it.

I have never before heard a real sportsman advocate the wounding of birds and letting them get away. I had always supposed the most sportsmanlike way was to kill the birds as suddenly as possible, and to recover as large a percentage of those hit as possible. This theory of yours, that the test of sportsmanship is in hitting birds and letting them get away, instead of killing them, is new.—EDITOR.

ASK THE MAKER.

I have a Winchester 22, model '90. Have used both U. M. C. and Winchester shells, but like the Winchester best. I find them more accurate in my gun. While using U. M. C. cartridges I had one stick in the carrier. I then took 2 Winchester shells of same caliber and putting the U. M. C. between them I placed a rule on top and found the U. M. C. a full 1-32 inch the shortest. Should like to know if others have found the same difference. The Winchester shell boxes are labeled 7½ grains powder and 45 grains lead, while the U. M. C.'s read 7 grains powder and 45 lead. Why should they be different? Where can I procure bird lime? Have been told that it would be just the thing for catching English sparrows.

G. D. Burns, Minneapolis, Minn.

ANSWER.

I have never heard of a similar difficulty with the U. M. C. 22 rifle cartridge. It is possible the shells used in your arm may have had the bullets pressed deeper than is the case with the Winchester's. This would make the cartridge a trifle shorter and might cause the trouble. Write the U. M. C. Co. direct in regard to this matter, sending them some of the defective ammunition. They would, no doubt, be glad to get the information and replace the defective shells free of charge.

Bird lime for catching English sparrows may be bought from any dealer in taxidermists' goods who advertises in RECREATION.—EDITOR.

WHICH IS BEST?

There seems no end of conflicting views regarding the all around rifle. I have heard that Mr. Shields has done a good bit with the rifle. I suggest that he give us his view of an all around weapon. I hunted for years with a rifle and got more game than I could now with a shot gun. Should I design a gun it would be of 38 caliber, chambered for a 350 grain solid ball, or a 330 grain hollow point and 70 grains of black powder, or its equivalent in nitro. It would have also a second cartridge, a 100-yard load, with as light a ball as I could get, not much heavier than a buck shot, for small game.

Why is it the U. S. Army always has a weapon not quite so good as those in general use? The old Springfields are not up to the Remington single shot, nor does the Krag equal the Lee. Is it true that the action of the Mauser is better than

either? It is so claimed. Is there any clothing really waterproof? I've used oil-skin, rubber and mackintosh; all leaked on the shoulder.

Jno. A. Elliott, M. D., Northumberland, Pa.

I prefer to leave these questions in the hands of my readers, many of whom are thoroughly competent to handle them.

—EDITOR.

SMALL SHOT.

For 11 years I have been traveling through this part of Massachusetts with a shooting gallery. A few years ago the RECREATION readers among my patrons began asking why I did not use Peters shells, saying they had seen them advertised in their favorite magazine. At that time Peters ammunition could not be bought anywhere in Worcester county. To oblige my friends I procured a supply from headquarters, and later we induced a large concern in Pittsfield and another at North Adams to handle Peters goods. At Great Barrington one fall my partner and I had 3 galleries, side by side, and used 20,000 Peters shells.

That Peters goods ever found sale in Worcester county is due wholly to the efforts of RECREATION readers. That they are in much less demand at present goes without saying. I am still in the business, and I give my patrons what they ask for. At present they are worrying along with U. M. C.'s and Winchesters, but the bulls-eye bell rings about as often as ever.

Chas. Hamel, North Adams, Mass.

I have just been testing the new lubricated metal patched bullets, made by the National Projectile Works, of this city, and am confident there is no other projectile on the market that compares favorably with them for accurate shooting. In my first testing of the new wire-wound bullet I shot 5 out of 8 shots into a 1½ inch circle at 50 yards, hunting sights, muzzle rest, using 25 grains Laflin & Rand's 30 caliber smokeless powder, 30-30-160 Winchester lubricated metal patched bullet, and my little 30-30 Winchester rifle. I firmly believe this new bullet is an important improvement over the dry mantled bullet now so commonly in use. The new bullet has been patented, a company organized for its manufacture in this city, and machines are now being completed for making these bullets in large quantities and at reasonable prices. I am pleased to recommend this bullet to all who have high velocity rifles and do not wish to have them ruined by the use of dry metal patched bullets.

Geo. H. Newell, Grand Rapids, Mich.

Among pump guns I have used the Winchester, the Spencer and the Burgess. All are good, but with none of them can I shoot so well as with a double barrel. I have found the 12 bore Pieper, $75 grade, an admirable gun. So is the $40 grade Remington, with the additional advantage of unusually long range. For duck shooting the Lefever 10 bore, with 32 inch barrels, has given me great satisfaction. Am now using a 12 gauge Smith which I had made to order with 2 sets of barrels; one 28, the other 32 inch. The short barrels, of which one is cylinder and the other modified choke, I use for wing shooting. The long pair are choked to the limit. The combination makes as good an all around gun as one could wish. My conclusion is that a strong, light, well balanced gun that fits the user will give satisfaction no matter what name is stamped on it. A score of American makers are building just that sort of gun, and one is as good as another.

M. A. Curl, Rosehill, O.

I must add a few lines to what C. L. Adam says of the 44-40, as I have been a user of that gun 6 years and consider it an excellent weapon. I am not a crack shot, but have done satisfactory shooting with it.

I get better results with Dupont No. 2 smokeless powder than with any other. It is certainly the cleanest powder I ever used, and as nearly smokeless as is possible to make. I use the same powder in a 38 caliber revolver and greatly prefer it to black. With the latter the barrel fouls rapidly; but with No. 2 I can fire an unlimited number of shots, all equally accurate. The old black powder guns used with a suitable smokeless powder are as good as the modern small bores.

I would say to A. W. Webly that the 32 hand ejector revolver would be too light for 100 yard shooting. He will find a special heavy weight 38 a better weapon at that range. Sportsman, Harney, Md.

In February RECREATION A. D. R. asks which is best for duck shooting, a 10 or a 12 bore, and whether a 30 or a 32 inch barrel is preferable. The popular gun in the Northwest for ducks and geese is still the 10 gauge, 32 inch, 10 to 12 pounder. I am doing plenty of execution with an 8½ pound, 12 gauge, 32 inch gun which I had built to order by the Ithaca Gun Co. It is the $60 grade, with their double thick nitro breech, chambered for 3 inch shell and bored especially for No. 4 shot. I use 3½ drams Du Pont smokeless, 1¼ ounces No. 4 shot, and my friends are often surprised at the long kills I make. A 30 inch barrel gives as much penetration with nitro powder as a longer one, but the pattern of the 32 inch barrel is about 10 per cent better as a rule. P. S. L., Sioux City, Ia.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

THE MUCH NAMED WHITETAIL DEER.

W. T. HORNADAY, in the Zoological Society Bulletin.

The general zoologist, interested more in animals than in their names, who attempts to stand midway between the small body of technical zoologists and the masses of the unscientific public, is certain to be torn by conflicting emotions. Compared with him, Prometheus was a comfortable and even happy man. He must cheerfully confront the masses with the assurance that scientific zoology is the foundation of all infallibility, even while the vultures of Nomenclature are gnawing at his vitals. Whether he will or no, he must change the scientific names on beasts and birds as often as the inexorable scientific leaflet demands, and without making a wry face carry them out to 3 decimal places.

There are times, however, when the general zoologist is filled by a wild desire to go baersark, and say things. In his calmer moments, he firmly resolves to cut loose from all scientific names, and make an open campaign with common sense as the only issue. He writes a scorching lecture entitled "Popular versus Unpopular Nomenclature;" which so relieves his mind that he calms down sufficiently to go out and make a fresh lot of changes on his labels.

To-day, the name makers are in strife as to who wields the heaviest pick and shovel, and who can dig the deepest after fossil names for living animals. It matters not for how many decades, or centuries, the name of a popular wild animal has been in the public prints, nor how many million people are acquainted with it. If your hunter of fossil names discovers a particularly obscure deposit of antediluvian science, straightway he hies him to the unworked cemetery, and digs and explores, regardless of the risk of being caught by many kinds of ancient germs.

Possibly he finds that some prehistoric nobody, whose scientific work died a-borning, bestowed on some wild animal a Latin name, or at least insinuated one, 15 minutes prior to the bestowal of the name by which the millions of to-day know it. The newly found name is tenderly taken up, scraped, disinfected, and patched until it will hold together. It is then brought into the light of day, and laid as an offering at the feet of the fetish called Priority. This means that the familiar name, the one in universal use, must fall down, and give place to the newly found fossil.

But there is one source of grim satisfaction. Each fossil name is certain to be knocked out by other fossil names.

As an illustration, take the Virginia, or whitetail deer, a modest and unassuming animal, and very set in its ways. To the unassisted lay mind there is no more excuse for changing its name every year than there would be in renaming Washington at every session of Congress; but what do we hear.

In 1785, right or wrong, Boddaert named it *Cervus virginianus.*

In 1827 and 1835 and 1841, 3 other authors mistakenly gave it 3 other names, without effect.

From 1785 to 1884 the following authors wrote of this animal as *Cervus virginianus:*

1788, GMELIN.	1831, GODMAN.
1789, ZIMMERMAN.	1836, SCHREBER.
1792, KERR.	1842, DEKAY.
1801, SHAW.	1844, WAGNER.
1822, DEMAREST.	1851, AUDUBON.
1823, SAY.	BACHMAN.
1825, HARLAN.	1857, BAIRD.
1830, DOUGHTY.	1877, CATON.

During the century covered as above, several foreign authors wrote of this animal under other names than that recognized by the foregoing array of highly respectable authorities.

With a century of general use in America, the name *Cervus virginianus* had become not only widely known, but one might suppose it to be well fixed, also. Now mark its fall, and the result.

In 1884, by common consent, the leading American mammalogists adopted a name bestowed on this animal, in 1842, *Cariacus virginianus;* in 1895, Allen called it *Dorcelaphus virginianus;* in 1897, Rhoades changed it to *Dorcelaphus americanus;* in 1898, in a book printed on very good paper, Lydekker (of England) seriously adopts for this animal *Mazama americana;* in 1899, Miller dug up *Odocoileus americanus;* in 1902, Allen proposes to call it *Dama virginiana.*

What next? In the language of the graduating essay, whither are we drifting?

To the general zoologist, all this naming, and re-naming, and tre-naming, of which the above is merely a sample case, would be amusing, if it were not so serious! It does not phase the general public, for through all this erratic bestowal and use of unpopular names, the good old popular name, whitetail deer, shines like a beacon, permanently fixed. The bother

comes when a zoologist is required to write a scientific as well as popular label and use the latest and the absolutely satisfactory-to-all scientific name.

It looks as if the worship of the Priority fetish has gone far enough. The situation is becoming ridiculous. There are about 20 good men in the mammalogy line who should stop resurrecting fossil names, get together on a common sense, practical basis, cremate Priority in a fiery furnace, and give us for our most important animals some names that will go thundering down the ages.

AGAIN THE HAWK QUESTION.

In spite of the costly experience of the State of Pennsylvania, the elaborate investigations and publications of the United States Department of Agriculture, and the repeated summarizing of the facts in RECREATION, the ghost of the all-destroying hawk still stalks abroad. In witness whereof I submit the following letters:

I notice an article in June RECREATION by H. V. Shelley, who claims the crow, hawk and owl are good friends of the farmer and wants to have them protected by law. Evidently this man has never seen a farm. If he had he would have seen scarecrows in the fields, put there to keep the rascal crows from pulling up all the corn. Hawks are even more destructive. When they pick up a chicken or young turkey and fly away with it, the farmer does not appreciate their friendship.

Geo. J. Lee, Hoosick Falls, N. Y.

The readers of RECREATION who live in Western Minnesota should show that its teaching is not in vain by declaring war on the numerous hawks that infest our prairies. If we all did our duty, we could materially reduce the number of these enemies of our game birds.

I killed 6 chicken hawks here in one day. Two I caught in the act of raiding covies of chickens.

O. S. Lowell, Glenwood, Minn.

Once more I refer all readers of RECREATION to Bulletin No. 3, Division of Ornithology and Mammalogy, of the Department of Agriculture, published by the Government in 1893, and entitled "The Hawks and Owls of the United States in Their Relation to Agriculture," by Dr. A. K. Fisher. This valuable volume sets forth the long series of investigations of the food habits of the hawks and owls of the United States, with full details. Thousands of stomachs of our hawks and owls, in some cases several hundred specimens of a single species, were examined most carefully, and their contents inventoried. Of the red tailed hawk, 562 stomachs were examined, and the results are published in full. There is no question about either the thoroughness of the investigations, or the accuracy of the result.

They establish the fact that of all the hawks and owls in North America, only 2 species do sufficient damage, beyond the good they accomplish, to justify their destruction. These are the sharp-shinned hawk and Cooper's hawk, and wherever they are found, it is right to kill them. The other hawks and owls feed chiefly on wild mice and rats, grasshoppers, beetles and shrews, and the actual service which they render the farmer far more than compensates him for the occasional domestic fowls which they destroy.

For the third time, I refer to the experience of the State of Pennsylvania, which, in the belief that all hawks and owls were injurious to the interests of farmers, provided for the payment of bounties for their destruction. An immense number of hawks and owls were killed, and immmediately the farms were overrun by a horde of destructive rats, mice and insects, which increased with astonishing rapidity, because the birds which had held them in check had been destroyed. After an immense amount of damage had been inflicted to the agricultural interests of the State, what is known as the "Fool Hawk Law" was hurriedly repealed, and now the Pennsylvania farmers know their feathered friends when they see them.

The trouble with Mr. Lee is that he is not taking pains to inform himself regarding the food habits of the hawks which he would destroy. He does not give them credit for the thousands of destructive mice and rats that they kill on his farm each year. Thanks to the investigations that have been so ably conducted by the Department of Agriculture, there is no room for argument on the hawk question. Excepting the 2 species named above, the hawks and owls are among the farmers' best friends, and should be carefully protected.

W. T. Hornaday.

CAN CROWS SMELL GUNPOWDER?

The old time notion that crows smell powder is erroneous. I have made war on crows for nearly 30 years, and have shot as many as 300 in a single winter. The way I get them is by building a blind, and hanging near it one or 2 dead crows on a pole that will reach above the surrounding brush. In 2½ hours I have shot 36 crows from one blind. Surely some of them had a chance to smell powder, as I fired 48 times to kill the 36. I have known them to alight within 10 feet of where I was hidden.

They are always on the alert, and it is the acuteness of their sight and hearing that makes it so difficult to approach them.

They are particularly suspicious of any stealthy movement. It is often easy to get within shot range of crows by acting as if you did not see them and were bound on some other business. With all their cunning, I do not believe they can tell a gun from a pitchfork, nor gunpowder from sawdust.

Gilbert King, Howard, R. I.

In a recent issue of RECREATION a correspondents asks if the crow can smell gunpowder. I answer in the negative. It is not the smell that crows fear; it is the sight of the gun itself. If you are not carrying a gun you can often walk in under the tree on which crows are sitting. Then take a gun and see how near you can get to them. They will retreat long before you are within gun range. To further test this matter, take a piece of wood, a limb or pole, about 4 feet long, throw it over your shoulder and see how soon the crows will spot you. The crow's fear of a gun has become instinct. Young birds taken from the nest often become furious at the sight of a stick in one's hand, while they show no fear of the person himself.

A. W. Blain, Jr., Detroit, Mich.

I see in August RECREATION that R. Armstrong is undecided as to whether or not crows can smell gunpowder. No, brother, they can not. What they smell is the strong nitro primer. Crows are as deaf as posts and blind of both eyes, but they have miraculous noses. I have frequently observed them take alarm at 200 yards when approached with a gun down wind. Use black powder primers and you will have less trouble. If that is not possible, smear your gun with asafœtida and stalk them up wind under cover of the night. The latter way is the better.

W. S. Crolly, Hoosic Falls, N. Y.

I doubt whether crows can smell powder to the extent of being able in that way to detect the approach of a hunter. The rascals were a pest here last year, and a friend and I hunted them 3 days, killing about 25. We got 9 in one day by following a large flock and calling them repeatedly.

I saw a white squirrel near here last fall, and got within 6 feet of it. It was perfectly white save for a small black spot on top of its head and a few black hairs at the tip of the tail. Later I saw another. Both resembled, in size and actions, the common chipmunk.

F. C. Muzzy, Bristol, N. H.

THE SQUIRRELS AND THE CORN.

Avoca, Iowa, a town of 2,000 inhabitants, probably contains more squirrels than any other town in the country. Just East of it is a large grove abounding in these beautiful creatures, the owner not allowing them to be killed. Our streets are lined with trees, and the residence portion of the town is fairly alive with squirrels. They are never molested and are exceedingly tame, often taking food from one's hand. I have frequently seen them carry off ears of corn. Only a few days ago one carried off, in less than half an hour, a crockful of walnuts from my kitchen. Last summer I noticed the ground under a cottonwood tree near my house was covered with freshly fallen leaves. This proved to be the work of squirrels. On the stem of each cut leaf was a swelling caused by a deposit of eggs of some insect. The squirrels had eaten the eggs from each leaf before dropping it. Dr. C. W. Hardman, Avoca, Ia.

In the fall of 1897, I was hunting near Carthage, N. Y. While in a piece of maplewoods near a field of corn, I saw something moving about 30 feet from the ground in one of the trees. On close observation I saw it was an ear of corn and that some animal was trying to pull it into a hole. After waiting a few minutes I fired direct at the ear of corn. It fell to the ground, and out of the hole popped a grey squirrel, which ran to the top of the tree. I do not know why he should have tried to carry a whole ear of corn into the hole, as he was so near the field he could have taken a kernel at a time and soon have had a supply sufficient for his need.

H. Sylvester, Lima, N. Y.

F. E. Williams, of Spring Valley, Minn., tells in RECREATION about grey squirrels carrying corn from farmers' cribs and hiding it until they have a bushel or more stored away. I have made a close study of the habits of squirrels, both wild and tame, and never until last spring saw one carry an ear of corn. In March I observed a grey squirrel come out of a grove and cross an open field to a corn crib. In a few minutes he returned, carrying an ear of corn, holding it by setting the front lower teeth into the pith and his upper teeth in the edge of the cob. I do not think this is a common habit; anyway, it was the first case I ever noticed.

W. R. Felton, Coffeyville, Kan.

I note, in August RECREATION, that you question the statement of F. E. Williams, Spring Valley, Minn., in regard to grey squirrels carrying off whole ears of corn. In the early part of last June I went into a field to see a farmer who was plowing, about 40 rods from a barn, and between it and an oak grove. I saw a squirrel going across the plowed land toward the barn. In a few minutes he came back with a

whole ear of corn in his mouth. He passed near us, so I could not mistake what he was carrying. For my part, I should enjoy seeing squirrels around too much to begrudge them a little corn.

A. E. Beckwith, Cheney, Minn.

ARE WILD ANIMALS JEALOUS?

I notice in June RECREATION some remarks by Mr. Browne in regard to squirrels injuring birds' nests, I believe it, and from observation I think I have arrived at the true reason why they do so. I notice in all animals a great amount of jealousy and in many cases resistance if they think their lawful domains are about to be usurped. The squirrel is more prone to show this trait than any other member of creation.

A number of years ago I was tutor to a gentleman's family in Ireland. He had a fine estate and the grounds were kept in the best trim. A private path led through a part of the grounds called the hazel wood. A number of large pine trees were scattered through the hazel shrubs and this part of the wood was fairly swarming with red squirrels. A rustic seat was placed under one of the pine trees and when I had time I used to sit there a few minutes in passing and watch the fun and frolic of the little fellows. When they got used to me and saw I was not dangerous many would come in the direction of the seat when they heard my step.

One morning in approaching this spot I heard a terrible chatter of sparrows and when I came up I saw the cause. Someone had left a few stalks of ripe wheat on the seat; the sparrows wanted the grain and the squirrels were guarding it like so many little dogs. They would not let a bird alight on the bench.

Early one season a few squirrels settled in a large fir tree opposite the library window where I taught my pupils. The grass was always kept short and the squirrels amused themselves by leaping on and off the boughs, which drooped to within a few feet of the ground. Occasionally a male blackbird, who seemed to live not far away, would hop under the same tree and pick up insects or worms from the ground. If seen by the large squirrels of this little colony he was pursued and had to leave the grounds. One morning we observed the blackbird had this little space all to himself for a much longer time than usual. He had settled down on his breast and was picking in the closely mown turf to his heart's content. On the bough right over him I saw a squirrel almost motionless, but apparently studying out from what position it could drop on the blackbird. At last it dropped its paws around the bird so as to cover it completely and kept it so 4 or 5 seconds. After what appeared a fierce struggle the bird escaped, leaving a few feathers flying. We never saw the blackbird under the tree again and the squirrel seemed satisfied that no further intrusion would occur.

W. J. Fleming, New York City.

A CITY BIRD COLONY.

Since writing you last my bluebirds successfully reared a brood of young, 5 or 6 in all. I only saw 4 together on my oak tree, but I think there were one or 2 more, as I noticed one that appeared larger and stronger than the 4 and left the house a day or 2 earlier. Both the old and young bluebirds make daily visits to my yard.

June 17 a male house wren appeared and started to build a nest in the bluebirds' abode in spite of the vigorous protests of the former occupants. They made swift dashes at the wren on numerous occasions, but the latter easily got out of reach, kept on singing and nest building, and finally succeeded in blockading the entrance with small sticks or twigs, effectually excluding any bird larger than a wren. The wren was alone for over a week, and I thought it would be the old story of the past 2 years, when throughout the whole season only a male bird was about. However, a few days ago Jenny appeared and the female is now completing the nest.

The bluebirds, who appeared to wish to renest in their house, have given up the idea, and are going into a flower pot house. I hope they will raise another brood, as they certainly have ample time before cold weather.

I have a pair of tree swallows. Their brood left the house yesterday, June 20. The old birds appear to wish to renest, though they are said to raise only one brood in a season.

I also have 40 purple martins, about 15 pairs of which have young. The old birds must destroy millions of insects, as they find the food in the air and feed the young from daylight to dark.

All these birds find homes on a city lot, 35 x 127 feet. All I do is to provide them boxes and protect them from the English sparrows.

An English sparrow will stand about everything except being shot at. A good air gun solves the problem nicely, makes little noise, but does the work.

Frederick Wahl, Milwaukee, Wis.

NOT ONE REDEEMING TRAIT.

At last some one has been found to say a good word for the English sparrow. According to a report from Washington, the sparrows in that city have been devouring the 17-year locusts, and in this way have prevented their great spread.

It was first noticed, according to this despatch, that the sparrows were not so common as usual on the streets, and it was then found that they had gathered in enormous numbers in the parks, where the locusts were most numerous. This is a surprise, for it has not been generally thought that these sparrows are insect-eating birls; but the fat grub of the 17-year locust evidently suits their taste, and the birds are reported as growing plump on their new diet.—Boston(Mass.) Herald.

The above clipping suggests the idea that perhaps the English sparrow is not, after all, so black as he is painted.

M. H. Root, Minersville, Pa.

The detested English sparrow has recently demonstrated that he can be of some use after all. Last month the 17-year locusts came in great numbers, and the sparrows had a grand feast, evidently considering the insect pests a rare delicacy. The birds ate the bodies and left the wings untouched. In a few days the incessant hum of the locusts became fainter and soon ceased altogether ,showing how thoroughly *Passer domesticus* had done his work. It is generally believed he is not an insectivorous bird, but if the locust tickles his palate why should not other kinds of insects? If it can be shown that these birds destroy different forms of obnoxious insects, it might be well to protect them; but I hardly think this one good trait could overbalance their many bad ones, especially that of persecuting other birds.

Harry P. Hays, Hollidaysburg, Pa.

ANSWER.

Regarding this matter, A. K. Fisher, of the U. S. Biological Survey, Washington, D. C., says:

The English sparrow, together with a large proportion of our native birds, fed extensively on the 17-year locusts which recently swarmed in this vicinity. As this insect is of little economic importance the work of the sparrow can not be considered of great value.

A LIVE SPARROW TRAP.

I notice Maude Meredith's appeal to the boys to take arms against the English sparrows and by good shooting end them.

It would be a smart boy who could beat the record of a sparrow killer once in my possession. This pest exterminator was a common screech owl, caught in Cook county, Texas. I made him a wire cage, with a dark box in which to spend the daytime. He soon became as gentle as any pet could be. It was amusing to hear his queer little screeches when he was waiting to take food from my hands. I fed him raw beef and sometimes rabbit flesh. He became so tame I gave him his liberty. Every evening just before dusk he would perch on a dead limb in the yard, and woe unto the rat or mouse that came in sight,

Later I moved to Davis, Indian Territory, and occupied a house with a long gallery in front. Between the ceiling and the roof of that gallery lived countless sparrows. One day I caught one and gave it to the owl, who fairly tore it from my hands in his eagerness to devour it.

Soon after I let him out of his cage that evening I heard a great commotion among the sparrows. The owl had raided a nest, and I found him with a young bird in each claw and another in his beak. After that I seldom fed him. Nevertheless, he fared royally, catching 2 and sometimes 3 sparrows for a meal, for he was a voracious little rascal. When he had devoured the pests on my place he foraged all over town.

I taught him many little tricks, such as playing dead, catching food tossed to him, etc. His favorite trick was, when I would allow it, to crawl into my coat pockets in search of food. Altogether he was an interesting as well as a useful pet, and if opportunity offers I shall get another. They are easily tamed, are cleanly, and as mouse and rat catchers are better than any cat.

Dan Bosley, Wapanucka, Ind. Ter.

RAISING BLACK DUCKS FOR DECOYS.

On a recent trip to Roanoke Island I met Mr. Spencer Daniels, of Wauchese, N. C., who has probably raised more Canada geese, black ducks and mallards for decoys than any other man in Dare county.

At the time of my visit he had about 50 geese and nearly as many ducks. Like everyone else, he got his original start from cripples; but the last 15 or 20 years has been breeding from raised birds exclusively. His experience with geese is practically the same as that outlined in my article in November RECREATION.

In raising ducks, however, he maintains that it is absolutely necessary they should have fish in plenty; and until well feathered should be kept from water, unless accompanied by their parents. He usually takes the eggs from the mother bird and hatches them under a hen. After the young ducks are hatched, he feeds and tends them himself.

If allowed access to the water while young, ducks are liable to get wet through and drown. They should also be kept out of heavy rain storms. Of 30 ducks hatched last spring, 27 were living at the time of my visit, 3 having been killed by rats. These were mallard and black duck. It is not necessary that they be fed small fish. Mr. Daniels threw several large fish in the pen while I was there and the young ducks fed on the flies which soon settled on the fish in swarms. He said that when the fish decayed, the ducks would eat the maggots, which, together with wet meal, were their best food,

In his pen was a female black duck which he winged 15 or 20 years ago. This duck has laid 12 to 30 eggs annually, and has outlived several mates. About 2 years ago her neck feathers began to turn white and now her head is nearly all white. She laid and hatched this year as usual and seemed in good health.

A. S. Doane, Waterlilly, N. C.

A FLESH EATING SHEEP.

A most unnatural and surprising propensity developed in a young lamb owned by John C. Fouts, of New Washington, Ind. A ewe dropped 2 lambs; one she refused to suckle and it was taught to take milk from a bottle. When about a month old it was allowed to run in the yard, with the fowls. Mrs. Fouts missed some of her young chickens and turkeys, and could not account for their loss, until one day on going into the yard she discovered her pet lamb pulling to pieces and devouring a young turkey. She told her husband, but he declared that such a thing was impossible. However, he kept a sharp watch on the lamb and one day saw it pursuing the young chickens. It caught one, pulled it to pieces and ate it; holding the fowl to the ground with the front feet just as a dog would do. A number of persons were called in to witness this extraordinary case of atavism, and Mrs. Fouts is still sacrificing chickens and turkeys.

The *Ovis* of the zoologists belongs to the *Artiodactyle* or paired toed ruminants. Geologically, sheep are thought to be modern animals, as their horns are not found in the tertiary beds which have yielded abundant modifications of antelope and deer. The *Equus* tribe not infrequently show atavism, eating flesh, and developing supernumerary toes. This condition can be accounted for by examining the bones and teeth of the Eocene *Eohippus* and *Orohippus*, which clearly indicate that these early ancestors of the horse were carnivorous; but what about the animal that from time immemorial has been held as an emblem of innocence, and has furnished cuticle for a badge for all masons? Will some zoologist please explain? W. F. Work, Charlestown, Ind.

NATURAL HISTORY NOTES.

Mr. Henry Chaffee, of this city, informs me that he saw a flock of 45 or more passenger pigeons in the outskirts of this city about 2 weeks ago. Mr. Chaffee is thoroughly familiar with the appearance of the birds mentioned, so there is no possibility of his being mistaken in regard to the identity of the birds. Mr. Chaffee told me he had seen thousands of the pigeons in his youth, but that it has been many years since any have been seen in this part of the country. Perhaps they are coming back. If so, let us not start in to bag them all, but give them a show.

Game is more plentiful in this locality than for many years. Quails especially are numerous and deer are frequently seen in the woods and pastures. The time may come when it will be possible to bag a deer even if one can not afford a trip to Maine.

L. A. Perry, Putnam, Conn.

I see your readers can not agree as to how grouse drink. The fact of the matter is that in wet weather grouse take water from the leaves; and in dry weather drink from springs and streams. Last fall I camped at various spots along the Queets river in the Olympic mountains. One morning I went to a spring near camp to wash dough from a pan. While I stood silently watching a lot of salmon fry eat the dough, out came a grouse from the brush, dipped his bill in the water and drank, exactly as a barnyard fowl would do. Having got his fill, he took a dust bath in a spot where the loose, dry earth had been pawed by an elk. Then he returned to the spring, took another sip, and flew up the mountain side.

G. Y. Hibbard, Queets, Wash.

Will some one please tell me how to make a trap to catch snakes alive and without injuring them? Is there any way to remove the poison glands of a rattlesnake? If the fangs alone are taken out they will grow again. What is the best remedy for rattlesnake and copperhead bite?

V. A. L., Albany, N. Y.

Have you commenced to think of Christmas presents? If so, here is a suggestion: A yearly subscription to RECREATION furnishes one of the most delightful, instructive, entertaining Christmas presents you can possibly give a man or boy who is interested in nature, in fishing, shooting, amateur photography; or, who is fond of the woods, the fields, the mountains, the lakes or the rivers.

Many of the presents which people give their friends afford pleasure only for a few days, or weeks. A subscription to RECREATION means solid comfort a whole year. It reminds your friend 12 times during the year of your kindness and generosity. There are many men and women who for 5 years past have annually sent in long lists of names of friends, accompanied with a check in order that these friends might be made happy a whole year. Would it not be well for you to adopt this plan?

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Applications for membership and orders for badges should be addressed to Arthur F. Rice, Secretary, 23 W. 24th St., New York.

LOCAL WARDENS IN NEW YORK.

County.	Name of Warden.	Address.
New York,	Conrad L. Meyer,	46 W. Broadway.
Livingston	M. De La Vergne,	Lakeville.
"	K. S. Chamberlain,	Mt. Morris.
Albany,	C. D. Johnson,	Newtonville.
"	Henry T. Newman,	"
"	Kenneth E. Bender,	Albany.
Broome,	John Sullivan,	Sanitaria Springs
"	R. R. Mathewson,	Binghamton.
Cayuga,	H. M. Haskell,	Weedsport.
Chemung,	Fred. Uhle,	Hendy Creek,
"	M. A. Baker,	Elmira.
Cortland,	James Edwards,	Cortland,
Erie,	E. P. Dorr,	103 D. S. Morgan Building, Buffalo.
"	Marvin H. Butler,	Morilla.
Essex.	W. H. Broughton,	Moriah.
Franklin,	Jas. Eccles,	St. Regis Falls.
Montgomery.	Charles W Scharf,	Canajoharie.
Oneida.	J. M. Scoville,	Clinton.
Orange,	Wilson Crans,	Middletown.
"	J. Hampton Kidd,	Newburgh.
"	Thomas Harris,	Port Jervis.
Richmond.	Lewis Morris.	Port Richmond.
St. Lawrence.	Dr. B. W. Severance,	Gouverneur.
"	A. N. Clark,	Sevey.
Schenectady.	J. W. Furnside,	Schenectady.
Suffolk.	F. J. Fellows,	Central Islip, L. I.
"	P. F. Tabor,	Orient, L. I.
Tioga,	Geo. Wood,	Owego.
Washington,	C. L. Allen,	Sandy Hill.
"	A. S. Temple,	Whitehall.
"	J. E. Barber,	Dresden.
Westchester,	George Poth,	Pleasantville.
"	Chas. Seacor,	57 Pelham Road, New Rochelle.
"	E. G. Horton,	Pleasantville.
"	M. W. Smith,	Croton Falls.
Dutchess, Columbia,	A. B. Miller,	Jackson's Corners.
Onondaga,	James Lush,	Memphis.
Yates,	B. L. Wren,	Penn Yan.
"	Symour Poineer,	Branch Port.
Dutchess,	Chas. H. DeLong,	Pawling.
"	Jacob Tompkins,	Billings.
Queens,	Gerard Van Nostrand,	Flushing, L. I.
"	W. S. Mygrant,	46 Elton Street, Brooklyn.
"	P. A. Geepel,	473 Grand Ave., Astoria, L. I.
"	L. B. Drowne,	119 Somers Street. Brooklyn.
Ulster,	M. A. DeVall,	The Corners.
"	Wm. S. Mead,	Woodstock.
Jefferson,	C. J. Smith,	Watertown.
Herkimer,	D. F. Sperry,	Old Forge.
Oswego.	J. E. Manning,	154 West Utica St.
Putnam,	H. L. Brady,	Mahopac Falls.
Schuyler,	G. C. Fordham,	Watkins.
Allegany.	G. A. Thomas,	Belvidere.
Schoharie,	O. E. Eigen,	Sharon Springs.
Warren,	Geo. McEchron,	Glen Falls.
Orleans,	J. H. Fearby,	E. Shelby.
Greene,	W. J Soper.	Windham.

LOCAL WARDENS IN OHIO.

Stark.	A. Dangeleisen,	Massillon.
Franklin,	Brook L. Terry,	208 Woodward Av., Columbus.
Cuyahoga,	A. W. Hitch,	161 Osborn St., Cleveland.
Clark,	Fred C. Ross,	169 W. Main St., Springfield.
Erie,	David Sutton,	418 Jackson St., Sandusky.
Fulton,	L. C. Berry,	Swanton.
Hamilton,	W. C. Rippey,	4465 Eastern Ave., Cincinnati.
Allen,	S. W. Knisely,	Lima.
Knox,	Grant Phillips,	Mt. Vernon.
Lorain,	T. J. Bates,	Elyria.
Ottawa,	Frank B. Shirley,	Lakeside.
Muskingum,	Frank D. Abell,	Zanesville.
Scioto,	J. F. Kelley,	Portsmouth.

LOCAL WARDENS IN CONNECTICUT.

Fairfield,	George B. Bliss.	2 Park Row. Stamford. Ct.
	Harvey C. Went,	11 Park St., Bridgeport, Ct.
Fairfield,	Samuel Waklee,	Box 373, Stratford.
Litchfield,	Dr. H. L. Ross,	P. O. Box 100, Canaan, Ct.
Middlesex,	Sandford Brainerd,	Ivoryton.
New Haven,	Wilbur E. Beach,	318 Chapel Street, New Haven, Ct.
"	D. J. Ryan,	188 Elizabeth St., Derby.

LOCAL WARDENS IN MASSACHUSETTS.

Norfolk,	Orlando McKenzie,	Norfolk.
"	J. J. Blick,	Wrentham.
"	S. W. Fuller,	East Milton.
Suffolk,	Capt. W. J. Stone,	4 Tremont Row. Boston.
Worcester,	B. H. Mosher,	Athol.

LOCAL WARDENS IN NEW JERSEY.

Mercer,	Jos. Ashmore,	124 Taylor St., Trenton.
Mercer.	Edw. Vanderbilt,	Dentzville, Trenton.
"	Roland Mitchell,	739 Centre St., Trenton.
Morris,	Joseph Pellet,	Pompton Plains.
"	Chas. W. Blake,	Dover.
"	Francis E. Cook,	Butler.
"	Calone Orr,	Hibernia.
Somerset,	G. E. Morris,	Somerville.
Sussex,	Isaac D. Williams,	Branchville.
Union,	A. H. Miller,	Cranford.
	C. M. Hawkins,	Roselle.
Warren,	Jacob Young, Reuben Warner,	Phillipsburg.
Monmouth.	Dory-Hunt,	Wanaque.
Hudson,	A. W. Letts,	51 Newark St., Hoboken.

LOCAL WARDENS IN PENNSYLVANIA.

Jefferson,	John Noll,	Sykesville.
Perry,	Samuel Sundy,	Lebo.
Warren.	F. P. Sweet,	Goodwill Hill.
"	Nelson Holmes,	Cornplanter.
Juniata,	Clifford Singer,	Oakland Mills.
"	Ezra Phillips,	McAlesterville.
Venango,	G. D. Benedict,	Pleasantville.
Potter,	Ira Murphy,	Coudersport.
"	Wiley Barrows,	Austin.
"	Chas. Barrows,	Austin.
Crawford,	Jasper Tillotson,	Tillotson.
"	Geo. T. Meyers,	Titusville.
"	J. B. Lamb,	Buel.
Cambria,	W. H. Lambert,	720 Coleman Ave., Johnstown.
Butler,	F. J. Forquer,	Murrinsville.
Allegheny,	S. H. Allen,	Natrona.
Beaver,	N. H. Covert,	Beaver Falls.
"	W. R. Keefer,	"
McKean,	C. A. Duke,	Duke Center.
"	L. P. Fessenden,	Granere.
"	Wm. Holsinger,	Stickney.
Lackawanna,	Wm. Weir,	Moosic.
"	Wm. Major,	"
Carbon,	Asa D. Hontz,	East Mauch Chunk.
Cumberland,	J. C. Gill,	Mechanicsburg.
Wyoming,	Cyrus Walter,	Tunkhannock.
Tioga,	E. B. Beaumont, Jr.,	Lawrenceville.
"	G. H. Simmons,	Westfield.
Lycoming,	Jas. J. Brennan,	Oval.
"	B. D. Kurtz,	Cammal.
Delaware,	Walter Lusson,	Ardmore.
Montgomery,	L. C. Parsons,	Academy.
Bradford,	Geo. B. Loop,	Sayre.
Clarion,	Isaac Keener,	New Bethlehem.
Cameron,	Harry Hemphill,	Emporium.
Clinton,	M. C. Kepler,	Renovo.
"	Geo. L. Kepler.	Renovo.
Northumberland,	G. W. Roher,	505 Anthracite St., Shamokin.
Elk,	D. R. Lobaugh,	Ridgway.

LOCAL WARDENS IN MICHIGAN.

County.	Name of Warden.	Address.
Ottawa,	W. H. Dunham,	Drenthe.
Kalamazoo,	C. E. Miller,	Augusta.
Berrien,	W. A. Palmer,	Buchanan.
Cass,	Thomas Dewey,	Dowagiac.
Hillsdale,	C. A. Stone,	Hillsdale.
Lake,	John Trieber,	Peacock.

LOCAL WARDENS IN VIRGINIA.

Mecklenburg,	J. H. Ogburn,	South Hil.
King William,	N. H Montague,	Palls.
Smythe,	J. M. Hughes,	Chatham Hill.
King & Queen,	R. D. Bates,	Newtown.
Louisa,	J. P. Harris,	Applegrove.
Henrico,	W. J. Lynham,	412 W. Marshall. Richmond.
East Rockingham,	E. J. Carickhoff,	Harrisonburg.

LOCAL WARDENS IN WYOMING.

Fremont,	Nelson Yarnall,	Dubois.
Uinta,	S. N. Leek, F. L. Peterson,	Jackson.
Carbon,	Kirk Dyer,	Medicine Bow.
Laramie,	Martin Breither,	Cheyenne.

LOCAL WARDENS IN TENNESSEE.

Sumner,	W. G. Harris,	Gallatin.
Stewart,	John H. Lory,	Bear Spring.
Robertson,	C. C. Bell,	Springfield.
Montgomery,	P. W. Humphrey,	Clarksville.
Madison,	H. T. Rushing,	Jackson.

LOCAL WARDENS IN NEBRASKA.

Hall,	E. C. Statler,	Grand Island

LOCAL WARDENS IN NEW HAMPSHIRE.

Cheshire,	S. C. Ellis,	Keene.
Sullivan,	G. A. Blake,	Lempster.
"	J. W. Davidson,	Charlestown.

LOCAL WARDENS IN VERMONT.

Rutland,	Wm. J. Liddle,	Box 281, Fair Haven
Windsor,	F. A. Tarbell,	West Bridgewater.
Orleans,	E. G. Moulton,	Derby Line.
Essex,	H. S. Lund,	Granby.

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Rock Island,	D. M. Slottard,	12th Ave and 17th St., Moline.
Iroquois,	J. L. Peacock,	Sheldon.

LOCAL WARDENS IN OKLAHOMA.

Kiowa and Comanche Nation,	A. C. Cooper,	Ft. Sill.

LOCAL WARDENS IN IOWA.

Clinton,	D. L. Pascol,	Grand Mound.
Pottawattamie,	Dr. C. Engel,	Crescent.

LOCAL WARDENS IN WASHINGTON.

Okanogan,	James West,	Methow.
Stevens Co.,	Jacob Martin,	Newport.

LOCAL WARDENS IN UTAH.

Washington,	S. C. Goddard.	New Harmony.

LOCAL CHAPTERS.

Albert Lea, Minn.,	H. A. Morgan,	Rear Warden.
Angelica, N. Y.,	C. A. Lathrop,	"
Augusta, Mont.,	H. Sherman,	"
Austin, Minn.,	G. F. Baird,	"
Austin, Pa.,	W. S. Warner,	"
Boston, Mass.,	Capt. W. I. Stone,	"
Buffalo, N. Y.,	H. C. Gardiner,	"
Cammal, Pa.,	B. A. Ovenshire,	"
Champaign Co., O.	Hy. F. MacCracken Urbana,	"
Charlestown, N. H.,	W. M. Buswell,	"
Cheyenne, Wyo.,	J. Hennessy,	"
Choteau, Mont.,	G. A. Gorham,	"
Cincinnati, Ohio,	B. W. Morris,	"
Coudersport, Pa.,	I. L. Murphy,	"
Cresco, Iowa,	J. L. Platt,	"
Davis, W. Va.,	J. Heltzen,	"
Dowagiac, Mich.,	W. F. Hoyt,	"
East Mauch Chunk, Pa.,	E. F. Pry,	"
Evansville, Ind.,	F. M. Gilbert,	"
Fontanet, Ind.,	W. H. Perry,	"
Ft. Wayne, Ind.,	W. L. Waltemarth	"
Great Falls, Mont.,	J. M. Gaunt,	"
Heron Lake, Minn.,	K. C. Buckeye,	"
Hollidaysb'g, Pa.,	H. D. Hewit,	"
Hopkinsville, Ky.,	Hunter Wood,	"
Indianapolis, Ind.,	Joseph E. Bell,	"
Jerome, Ariz.,	Dr. L. A. Hawkins,	"
Johnsonburg, Pa.,	W. J. Stebbins,	"
Kalispell, Mont.,	John Eakright,	"
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Kingfisher, Okla.,	A. C. Ambrose,	Rear Warden.
Lake Co., Ind.,	Dr. R. C. Mackey,	"
Lawton, O. T.,	Marion Miller,	"
Logansport, Ind.,	E. B. McConnell,	"
Ludington, Mich.,	G. R. Cartier,	"
Mechanicsburg, Pa.,	Dr. J. H. Swartz,	"
Minturn, Colo.,	A. B. Walter,	"
New Albany, Ind.,	Dr. J. F. Weathers,	"
New Bethlehem, Pa.,	Isaac Keener,	"
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Rochester, N. Y.,	C. H McChesney	"
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St. Thomas, Ont.,	L. J. Hall,	"
Schenectady, N. Y.,	J. W. Furnside,	"
Seattle, Wash.,	M. Kelly,	"
Syracuse, N. Y.,	C. C. Truesdell,	"
Terre Haute, Ind.,	C. F. Thiede,	"
The Dalles, Ore.,	C. B. Cushing,	"
Walden, N. Y.,	J. W. Reid,	"
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There are thousands of men in the United States who should be life members. Why don't they join? Will someone please take a club and wake them up?

A FEW SUGGESTIONS.

Would it not be a good plan to nave a brief summary of the fish and game laws published in RECREATION? Also for the L. A. S. to have posters outlining the laws sent to all the post offices in the country, so that all might know "where they are at"? This would result in a saving of some fish and game and of some money to unintentional offenders.

Ought not some measure be adopted to prevent so much cutting of timber along our streams and so much ditching and draining of swamp land? People are getting more eager for land. They cut the fringe of willows and alders from along the streams and clear off and drain the swamps in order to have a few more rods of land for pasturage or tillage. This robs the reserve storehouses of water that should be given during the summer's heat and drought. Old people here tell me there is not half so much water in our streams here in summer as there was 40 years ago. Then there were plenty of trout in all the streams; now many once famous trout streams become dry in the summer.

I suggest, as others have done, that there be a bounty on hawks and foxes. The fox, especially, is a great game hog, as all sportsmen know. Tell us how to trap him and poison him.

The State fish hatcheries should be increased in number; and they should stop planting trout fry and put out only fingerlings or yearling trout. Few of the fry planted in our streams ever survive the first spring freshet.

J. W. Phillips, Otselic Center, N. Y.

ANSWER.

It would, of course, be a good plan to publish a synopsis of the game laws in RECREATION, but it would take at least 100 pages to hold them, and I can not possibly spare so much space. Any man in the United States or Canada can get a copy of the U. M. C. Game Law Book, free of charge, by addressing that company at 315 Broadway, New York. This contains a synopsis of the game laws of all the States and all the Canadian Provinces. This obviates the necessity of using up space in RECREATION for printing the laws.

It would be a good plan to have posters distributed everywhere in the United States giving a synopsis of the game laws, but this would cost hundreds of thousands of dollars, and who is to pay the printer's bill? The League of American Sportsmen has printed many thousands of muslin posters and sent them out, yet I find on examining the membership roll that you have thus far failed to contribute one dollar toward this expense. Is it not astonishing that any man who is at all interested in the protection of game should refuse to become a member of this League, and thus to aid in its work.

A blank application for membership has been sent you and I shall anxiously await your response.—EDITOR.

LEAGUE NOTES.

The Hon. J. J. Doughty, Chief Warden of the Georgia Division of the L. A. S., is doing some great work. He has made several addresses of late before various organized bodies in that State, appealing for the co-operation and support of the people in protecting the game, the game fishes, the song birds and the forests, and is having many calls from various parts of the State for League literature, membership blanks, etc. As a result the division is growing rapidly and the League now has more members in Georgia than in any Southern State except South Carolina. Mr. Doughty has prepared a comprehensive, up-to-date game and fish bill which will be presented to the Legislature at its next session, and a strong movement has been organized to secure its passage. There is every reason to believe that the bill will be promptly passed and approved by the Governor. Then we can say, as in some previous instances, the League did it; and the A. D. G. H. said the League would never do anything worth mentioning.

Local warden J. W. Furnside, of Schenectady, N. Y., who, by the way, is a charter member of the League, recently arrested 2 men for illegal fishing and took them before the justice of the peace, who imposed a good round fine on them. Mr. Furnside is a stayer. He was instrumental in organizing a local chapter at Schenectady 3 years ago, and from that day to this he has never missed an opportunity to run in a law breaker. He has a large score of them to his credit, and I am informed that illegal hunting is now rarely heard of in his vicinity. Game and fish hogs have learned that it is dangerous to violate any law as long as Furnside is on the warpath and they are lying low in consequence.

Barber.—What do you think of this soap?

Victim.—Never tasted better.—Exchange.

I take several sportsmen's periodicals, but prefer RECREATION to all of them.

E. A. Shacklito, Marcus, Wash.

RECREATION is the best sportsmen's journal published.

G. T. Phillips, Rutland, Vt.

FORESTRY.

EDITED BY DR B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes 30 years to grow a tree and 30 minutes to cut it down and destroy it.

FORESTRY ADMINISTRATION IN INDIA.

WILLARD W. CLARK.
Of the Philippine Forestry Service.

PART I.

In studying forest management as carried on by the British Government in India it is advantageous to consider first the history of the development of forestry in that country. The natives of India have been from ages immemorial the greatest enemies of their own forests. They possess customs handed down from ancient times that must be overcome before good productive forests can be grown. The custom of burning over the forests so as to gain more land for pasture is perhaps the most detrimental. Many thousand square miles where there was once an abundance of forest growth have been made deserts by the continual periodic burning over by fires set by the natives.

Another custom that is hard on forestry and agriculture as well, is that of shifting cultivation. A native will burn over a piece of land, plant a crop in the ashes, cultivate it several years, till the fertilizer of ashes has been consumed, and then abandon it. Moving to another piece of forest land he continues his depredations, reducing the forest to a desert. The custom of using dried manure for fuel even where there is an abundance of wood, seems due to a singular, depraved taste and is responsible for the impoverishment of much land that otherwise might be well fertilized by cow manure.

Such treatment of the forests, especially in a tropical country, has a detrimental influence. The deterioration of the climate of whole districts and even countries has followed the destruction of forests. The once wooded Dalmatia is now a stony desert. Persia, once one of the granaries of the East, is barren and desolate over a large extent of the country. North Africa, formerly one of the chief corn producers for Rome, is subject to the severest droughts. Spain, Italy, Sicily, Greece, and Asia Minor have suffered greatly from deforestation; and finally, but not least, India has been injured by the destruction of her forests, especially in the Deccan and Northwestern parts. The influence on the productiveness of the country due to the deposit of silt on agricultural land, is one of the most serious results of deforestation. The experience of France, Switzerland and China of having many thousand acres of good land made a desert by the deposit on it of silt washed down from the hills from which the forests have been removed, has been repeated in India. Many streams that were navigable for some distance from their mouths have been filled with silt and many millions must be spent annually to keep them open.

The first forest management in India was applied to the teak. This tree has been from ancient times considered a royal tree, that is, belonging to the ruler of the district, and could be cut only under his supervision. When the British took control of the government the teak naturally fell under their supervision, but its cutting was not at first restricted. The great demand for this fine wood for shipbuilding caused its rapid removal so that it was feared the teak supply would be consumed, and in 1805 the first ordinance was passed for the protection of Indian forests. It prohibited the cutting of teak below 9 inches in diameter. A conservator of the forests of India, Captain Watson, was appointed in 1806. This conservatorship, however, proved unpopular. Many lumbermen who had been prospering when the cutting in the government forests was unprotected were hindred in procuring supplies and therefore used all their influence against the conservatorship. Because of unpopularity the conservatorship was abandoned in 1823 and the most unrestricted fellings occurred immediately following that time.

In 1847 Dr. Gibson showed the government the physical effects produced on the country by the removal of the forests and was appointed conservator of forests by the Bombay government. In 1855 Lord Dalhousie laid down for the first time the outline of a permanent forest policy. In 1856 Sir Diedrich Brandis was appointed superintendent of forests in Pegu and undertook the carrying out of a forest policy. He formed working plans and with the aid of a system of native contractors was able to exploit great forest areas and obtain suitable prices for the forest products. Thus a practical system of working the forests was created under his charge. The size and importance of the Indian forestry service has steadily grown since Sir Diedrich Brandis took charge. In 1869 there were 57 forest officers. In 1882 there were 94. At this latter date the number of forest officers was increased to 1,000 and the

average salary of the forest officer was also increased. The service was arranged so as to give the rangers and deputy rangers a chance to rise in the service and the better educated guards were given an opportunity of becoming foresters. The whole service, especially the provincial service, was arranged with a view of attracting the most suitable classes of the country, as follows:

The inspector general of forests is the professional adviser of the government of India and the local governments on all important forestry subjects, controls the forest school, at Dehra Dun, and has charge or general supervision of the forest surveys and working plans. The conservator of forests, whether in charge of the forest management of a whole province or a circle forming part of a province, is regarded as the head of the department of that district and is subject to the inspector general. The conservator has more influence on the prosperity of the department under his charge than any other officer. The director of the forest school at Dehra Dun is a conservator of the school circle. A conservatorship, whether of a province or a circle, is divided into a number of divisions, each in charge of members of the controlling staff. The more important divisions are in charge of officers of the imperial service, while the minor divisions are in charge of provincial service officers. These divisions are divided into ranges looked after either by junior officers of the provincial service or by rangers and deputy rangers, and in some instances by foresters. The ranger is the executive officer of the tract under his charge and is directly responsible to the divisional officer for the protection and management of the forest in each detail. Rangers should possess high technical education. The range is divided into a number of beats, in charge of forest guards. The number of various officers in the forest service is as follows:

Imperial Service.—Inspector General of Forests, 1; Conservators, 19; Deputy Conservators, 117; Assistant Deputy Conservators, 63.

Provincial Service.—Extra Deputy Conservators, 5; Extra Assistant Deputy Conservators, 107; Rangers, 437; Deputy Rangers and Foresters, 1,226; Guards, 8,533; total, 10,508.

The British forest officers were formerly educated in the continental forest schools. In 1884 a national forest school was started in connection with the Cooper's Hill college for engineering. The course extends over 3 years. Most of the last year is spent visiting the schools and forests on the continent. Dr. Schlich is the present head of the college, Professor Fisher being his assistant. A rigid physical examination must be passed before entering the forest school. The degree of C. I. E. (Certified Indian Engineer) is given on completion of the course.

The Dehra Dun forest school educates rangers and foresters for the province included within the Bengal presidency and Madras. There are 2 courses, one given in English for the rangers and the other in the vernacular for the foresters. The school was started in 1878 as the result of the suggestion of Sir D. Brandis. Capt. F. Bailey, R. E., was the first director; J. S. Gamble is the present director.

WHAT A GOVERNMENT FORESTER MUST KNOW.

The interior department employs a force of supervisors, superintendents, inspectors and rangers on the forest reservations, who are selected not by civil service examinations, but are expected to be able to answer the following questions:

What is the extent of your general education? State whether you have received a common school, high school, college or university education.

State fully what technical, scientific or professional studies you have pursued.

If you have attended any scientific, professional or technical school or college, state what school or college, the length of time you attended each, the courses of study pursued, whether you were graduated, and the exact date of such graduation.

If you have any practical knowledge of a mechanical trade or trades, the length of time you have worked thereat, and where, when (giving dates) and under whom you have so worked. If you have served an apprenticeship, so state.

If there are any branches of the profession or occupation for which you regard yourself as especially expert, state what branches.

What has been your business or occupation for each of the past five years?

State fully where, when and how long and for whom you worked, and what particular work you did in the following:

Have you ever felled timber with ax and saw? State where and when.

Have you ever driven teams in the woods, skidding, hauling, etc.? State where and when.

Can you handle and keep in order a crosscut saw?

Have you ever handled steam logging devices, skidders, pull boat, etc.? State where, when and how long.

Have you ever built or operated chutes and slides or flumes for timber? Where and for whom?

Have you ever laid out logging roads for wagons and for sleighs?

Have you ever built such roads?

Have you ever built or operated logging railways?

Have you ever built dams?

Have you driven logs or rafted timber?

Have you built log houses or camps?

Have you worked in saw-mills? State what, where and when.

Have you worked at any other woodcraft? State what.

Have you scaled timber and lumber, and what scale do you know best?

Have you estimated standing timber? State where, when, how long and for whom.

What methods of estimating are you most familiar with? Here state how you usually estimate.

Do you know the strip and circle methods?

Have you ever measured standing timber?

State how, where, when and how long, and what method you pursued.

Can you readily follow old blazed lines?

Can you run a compass course readily and safely?

Have you practice in pacing distances?

Have you ever run and blazed lines in the woods?

Have you ever mapped out a piece of woods?

Have you ever marked out timber for cutting?

Do you know our common forest trees?

Have you had experience in farming?

Have you ever handled men as boss, foreman or employer? State where, when and under what circumstances.

Have you ever carried on a business of your own? State what, where and when.

Can you keep books or have you had experience as a clerk? State where and how it was obtained.

Can you pack a horse and travel on snowshoes?

Have you had experience in camping?

Can you handle a boat and canoe?

Are you safe in finding your way in the woods?

Have you had experience in fighting forest fires? State where and when gained.

Have you had experience in handling range cattle, sheep and horses? State where and when gained.

Give the name and address of 3 persons for whom you have worked and who could testify to your capacity in service.

There are so far only about 100 positions which are permanent through the year; the number is increased to a maximum of about 400 during the summer months.

The 6 superintendents and 2 inspectors at present employed receive $2,000 a year, while the variable number of rangers receive variable salaries of $60 to $90 a month.

The force is entirely inadequate to do much good.

TRAILS.

The value of a system of properly constructed trails in a country such as the Adirondacks can not be over estimated. They are the cheapest means of rendering places accessible in mountainous districts. They are of great use in the control of forest fires. In this respect they are equal if not, all things considered, superior to fire lanes. A fire lane is easily neglected and soon grows up in bushes. Fire lanes produce a draft through the woods, and let in the light so that weeds start and spread. Fire lanes also consume much space. At best a fire lane is only a point of vantage in case of fire and this a trail is also if properly located. I do not, of course, refer to railroad fire lanes, which are essential. A trail should be so well cut that a horse can follow it easily, on easy ground winding around hills; following water courses with lines of least resistance. There is little gained by going directly over a hill when one can go around it. People fail to realize that the bale of a bucket is as long in a vertical as in a horizontal position. These trails will in time become roads. Already they are followed by many telephone lines. The trail is a great labor saver. We need, however, better trails; that is, trails which have been laid out with some care and not by guess, so that pack horses may be used.

SEEDLINGS.

A kind of fertilizer which is being used more and more is wood ashes. All wood ashes should be saved and kept in a dry place until needed for the lawn or garden. A coating of ashes around an old tree will often revive it to a surprising degree. These ashes are collected from house to house in Canada where hard wood is burnt and are shipped to all parts of this country. They lack, of course, nitrogen, but other mineral necessities of the plant are there in the proper proportions. Wood ashes are Nature's own formula. They contain no weed seeds and have no disagreeable qualities. If it is not unpractical to compost the leaves which are falling so abundantly at this time of the year it would pay farmers to have a special place with a hard floor for the burning of leaves and brush so that the ashes might be saved.

A most interesting and valuable publication entitled "A History of the Lumber Industry in the State of New York," by Col. Wm. F. Fox, has recently appeared. It is bulletin 34 of the Bureau of Forestry, Department of Agriculture, Washington, D. C. Every person interested in the development of the State of New York should own a copy. A valuable feature of this publication is a map showing the progress of settlement in the State.

A magnificent report has just been issued by our government, relating to the proposed Appalachian park. Although reservations are being frequently set aside in our Western country the actual purchase of this vast territory in our Southern mountains will be an epoch-making event in the history of forestry in this country.

The forestry commission of Michigan is exerting itself to accomplish something definite in forestry in the near future. Both the University of Michigan and the Michigan Agricultural college have chairs of forestry and offer several courses in the subject.

Mr. Gifford Pinchot, chief of the Bureau of Forestry, is now visiting the Philippines on a forestry inspection tour, at the request of President Roosevelt.

The students of the forestry college of Cornell university are preparing a journal called Forestry Quarterly, which will soon make its appearance.

PURE AND IMPURE FOODS.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH.D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

THE CHRISTMAS GOOSE.

To many, Christmas would not be complete without its roast goose, and it seems an almost necessary part of the famous Christmases of literature. Was any Christmas dinner ever better relished than that of the Cratchits, Tiny Tim and the others, in Dickens' "Christmas Carol," with its roast goose, stuffed with sage and onions and brought in high procession from the baker's by Master Peter and the 2 young Cratchits, then eked out with apple sauce and mashed potatoes, and followed by the famous pudding boiled in the wash-house copper? Of the goose and its place in the diet, the following statements are made by Doctor Thudichum, who, in his writings, has combined cookery, history, and philosophy in a most agreeable way.

"The goose was much valued in antiquity as a delicate dish by the Egyptians, and by the ancient Britons at the time of the invasion of Julius Cæsar. It was also surrounded with a halo of sanctity, and used as an authority for the authentification of an oath by Rhadamanthus and his Lycian subjects. At Rome, the goose was for a period not eaten, but honored as the savior of the Capitol from the besieging Gauls; but after Cæsar's conquest of Gaul, geese, particularly those from Picardy in France, were largely imported into and consumed in Rome. A Roman consul, Metellus Scipio, invented, according to Pliny, the art of fattening geese and making their livers more delicate. The learned physician, Julius Cæsar Scaliger, had much humorous admiration for these animals. It may be interesting to cooks to know that the French chemist Mêmery saw a goose which had been trained by a cook to turn a spit. It seized the handle with its beak, and by alternately extending and contracting its neck it did the work of a turnspit.

"A goose intended for roasting should not be excessively fat, as it will lose most of its grease during roasting. In trimming and trailing the goose, the lungs, technically called soal, or soul, which adhere to the chest-wall, are not removed. The goose may receive various kinds of stuffing, of which that made with sage and onions has been popular, although, owing to the essential oil of the sage, it is rather indigestible. The best stuffing for a goose are small Dutch, or finger potatoes, sliced fine, salted and peppered, and mixed with the kidney and caul fat from the interior of the goose, finely chopped, or with half their weight of suet or scraped bacon. The same treatment is applicable to chestnuts when used to stuff a goose. Some force or sausage meat may be mixed with them to increase their taste. The practice of eating apple sauce with goose has given rise to a particular kind of stuffing, described by Soyer, in which the apples and the sage and onions are blended with grated boiled potatoes. A sharp sauce for roast goose, described by Ignotus and Kitchener, which was to be poured into the body of the goose, called by the former 'a secret worth knowing,' was evidently appreciated by these authors.

"A goose may be braised in the plain or stuffed condition; when well done it practically becomes roast goose, but admits of being made more juicy. Stewed goose may be immersed in an aciduous and savory jelly or aspic. If the meat be boned it adds to the convenience of the cook as well as the consumer.

"Where, as in the lake districts of North Germany, hundreds of thousands of geese are annually reared to serve as human food, a great variety of preparations have to be employed to make the several parts of the animal eatable and transportable in a preserved state. The breast is mostly pickled and smoked and sold as Pomeranian goose breast. It is eaten raw in thin slices, like Westphalian ham, with bread and butter, and is of excellent taste. The livers are transformed into pâtés. The other pieces of the geese are made into a pickled and stewed preparation, which is preserved in fat and consumed gradually during the winter. It is called Pökel-Gans, pickled goose. A similar mode of curing, cooking, and preserving is practised at Bayonne, in France."

THE IMPROVEMENT OF ORCHARDS.

The majority of persons, at least of those who live in temperate climates, will probably agree that in the long run no fruit is so satisfactory as the apple. If the dwellers in the tropics prefer other fruits, it is perhaps because the apple does not grow to perfection except in cooler regions. Most of the tropical fruits bear transportation to temperate regions, but the best fruits of temperate regions can not be so successfully transported to the tropics and marketed there. Like all fresh fruits, the apple is not very nutritious in proportion to its bulk, containing as it

does some 85 per cent water in the edible portion. The principal nutritive material consists of carbo-hydrates, chiefly sugars. In addition to the nutrients which they furnish apples are of great value as appetizers, and the salts, acids and other bodies which they contain are undoubtedly beneficial. Furthermore, they render the diet attractive, and this is a quality which can not be measured in chemical terms. Many apples are raised on farms and in gardens but the crop might be largely increased by giving proper attention to old trees and by planting new ones. Care should be taken to select the well known sorts rather than the wonderful varieties so often offered for sale, which are almost always worthless. The experiments lately made by Professor Card, of the Rhode Island Experiment Station, to increase the yield of an old orchard, are of interest.

"It was a home orchard of something less than an acre, containing many varieties, which had been planted about 25 years. When work was begun the trees looked unpromising. They had made little growth, and the trunks were covered with lichens or moss. No fruit had been produced for several years. The treatment given by the Station was such as any farmer might afford.

"The first thing done was to scrape off the rough, loose bark from the trunks and branches, and prune the trees. This rough bark may do little harm, but it denotes lack of thrift, and affords a harbor for insects. The pruning was simple in this case; only dead branches and crowding suckers were removed. How much to prune in other cases will depend on the condition of the trees. If they are old and decrepit, with dying branches and failing strength, pruning should be vigorous. An apple tree can be renewed like a grape vine. A wealth of suckers is its signal that such renewal is needed. In extreme cases a tree may even be cut to the ground and another built upon a young shoot which springs up. This is seldom demanded, but with old trees which have lost their vigor, whose branches are diseased, and which have made but little growth, quicker returns and better fruit may come from heroic treatment. Cut out the old branches ruthlessly. Leave vigorous young suckers to take their place. A new top will quickly form and better fruit will result. If trees are not so far on the decline such pruning will not be needed. It may then be confined to thinning out useless branches. Sunshine and air should have free access."

In addition to trimming the trees thoroughly, Professor Card had them sprayed with Bordeaux mixture and Paris green, to destroy fungi and insect enemies. The soil around the trees was cultivated and suitable fertilizers were applied. The effect on the trees was marked. Two years after the treatment began about $80 worth of fruit was harvested, though before Professor Card began his experiments the orchard had borne little, if any, fruit.

BUCKWHEAT FLOUR.

According to A. L. Winton, it is a not uncommon practice to sell various mixtures containing inferior wheat flour, corn flour or other cereal products, under the name of buckwheat flour. These mixtures are much cheaper to prepare than genuine buckwheat flour, but usually sell for the same price in the retail market. While it is true, as is sometimes urged by way of excuse for this illegal practice, that some buyers prefer to use a mixture of buckwheat and other flour, it is likewise true that others prefer clear buckwheat, and that all buyers have the right to know exactly what they are paying for; a right which is denied them when mixtures containing cereals are sold to them under the name of buckwheat flour. Such mixtures can only be legally sold in Connecticut either under distinctive names, "not under the name of another article," or "so labeled or tagged as plainly or correctly to show that they are mixtures, or compounds, combinations or blends."

"Self-raising" or "prepared" buckwheat flour, put up in sealed and labeled packages, contains the requisite quantity of baking powder and salt for cooking by simply being mixed with water or milk. The flour in these preparations is often a mixture containing wheat or corn flour, or both. Rice and barley flour are also occasionally used. The trade names under which pure self-raising flours are sold as well as the information given on the packages, show that they are mixtures, and although it is not always stated that various kinds of flour are present, there is no evident intent of deception. The samples examined in Connecticut in 1901, under the provisions of the State pure food law, may be classified as follows:

Buckwheat flour not found adulterated.	63
Buckwheat flour adulterated.....	44
Adulterated with wheat flour.....	26
Adulterated with corn flour.....	9
Adulterated with wheat and corn flour..	9
"Prepared" or "self-raising" buckwheat flour	8
Total	115

Under the head of unadulterated buckwheat flour are included all samples in which no appreciable quantity of matter foreign to the buckwheat kernel was detected.

Minute quantities of wheat starch, such as might readily come from the dust of the mill or warehouse, are disregarded.

The samples designated adulterated buckwheat flour were bought in each case for buckwheat flour and the buyer was not informed either by word or label that they were mixtures. They contain in addition to buckwheat, either wheat flour or corn flour or both. In 2 samples rye flour appeared to be present although probably through accident rather than design.

The preparations called "prepared" or "self-raising" buckwheat flour were sold in sealed packages with full instructions for use on the label. In each case, the directions stated that the flour should be mixed with water or milk, immediately before cooking, without the addition of salt, baking powder, yeast or other leavening material. Microscopic examination disclosed the presence of wheat flour in all these preparations and of corn flour in all but 3. Rice and barley flour in small quantity may have been contained in some of the samples, but in the presence of buckwheat and wheat flour those are difficult of detection.

IS NEW BREAD INDIGESTIBLE?

It is commonly said that new bread is indigestible. Many believe, however, that this is not necessarily the case, and that new bread is not less thoroughly digested than old bread, if equally well masticated. According to The Lancet:

"A slice of stale bread on being broken with the teeth resolves into more or less hard, gritty particles, which, unless they were softened by the saliva, could scarcely be swallowed. The particles would irritate the throat and gullet. The fact is, therefore, that a man is compelled thoroughly to masticate and to impregnate stale bread with saliva before he swallows it. This act, of course, partially digests the bread and thus makes it in a fit state for digestion and absorption farther on in the alimentary tract. This is why stale bread appears to be more digestible than new bread. New bread, on the contrary, is soft, doughty, or plastic, and there appears to be no necessity to soften it with saliva, hence it escapes the preliminary digestive action of the ptyalin of the saliva. New bread, in other words, is in reality 'bolted,' and bolting accounts for many of the ills arising from dyspepsia. Accordingly, hot rolls should be enjoyed for breakfast without any fear of dyspepsia as long as the bread is good and as long as pains are taken to masticate it thoroughly.

"It is a curious fact that stale bread is not more dry than new bread, for on submitting stale bread for a short time to a high temperature it regains its condition of newness and becomes soft or plastic; and this in spite of the fact that some moisture is of necessity driven off in the operation. It is probable that in new bread there is free water present, while in stale bread the water is still there, but in a condition of true chemical combination. It is this combination which compels us thoroughly to moisten and to masticate stale bread before we consign it to the gastric centers. Similarly, the indigestibility of the Norfolk dumpling is probably due to the fact that it is of tough, doughy consistency, and, therefore, should receive considerable mastication before it is swallowed. It is a sound physiological plan, therefore, to adopt the habit of chewing each morsel a great number of times."

Already many thousands of people are wondering what they are going to get for Christmas presents. Other thousands are wondering what they are going to give their friends. If you wish to make a present to a man or boy who is interested in shooting, fishing, amateur photography, or nature study, give him a year's subscription to RECREATION. Nothing you can possibly buy for $1 would give him so much pleasure as 12 issues of this magazine. Come early and avoid the rush.

It is related that an Atchison girl spends so much time looking for and reading "helpful" books, and "helpful" poems, that her sisters have to do all the work.

An Atchison husband hovered at Death's door so long his wife remarked that she supposed he was having his usual trouble to find the keyhole.—Atchison Globe.

Small Boy—Give me a large bottle of the worst medicine you have.

Druggist—What's the matter?

"I've been left alone with grandma, and she's been taken sick, and I'm going to get even with her!"

I secured 15 subscriptions for RECREATION in 3 days, with only a few minutes' work each day.

James M. Graves, Potsdam, N. Y.

RECREATION, is without exception, the best magazine for the price that has ever come under my notice.

Chas. H. Nye, Cincinnati, O.

I am charmed with RECREATION.

Miss Mary T. Aimar, Charleston, S. C.

PUBLISHER'S NOTES.

WHAT DEALERS SAY OF THE CENTURY CAMERA.

Every camera bought of you has been perfect in every respect, and has given entire satisfaction to our customers, as well as to ourselves. We sold 4 Century Grands on the strength of the excellent quality of workmanship, and all 4 went to friends of first customer.

Yours respectfully,
F. E. Colwell & Co., Albany, N. Y.

I am in receipt of the Grand Camera; it is a beautiful piece of work and does you great credit. It is the finest and best made camera on the market. It will have a large sale. Centurys are good sellers and never stay on the shelves.

Yours truly,
Wm. C. Cullen, New York City.

I have handled Century Cameras since they were first put on the market and have used them as my leading plate camera. I consider them the most perfect plate camera made, both in mechanical construction and finish.

Yours truly,
L. B. Wheaton, Worcester, Mass.

Your goods, which we have handled the past season, have been perfectly satisfactory and we consider them the best in your line.

Yours truly,
Harvey & Lewis, Hartford, Conn.

THE NEW SYRACUSE CATALOGUE.

The Syracuse Arms Co. has issued the finest gun catalogue I have ever seen. It illustrates their different grades of guns in various positions, and there is one page illustrating and numbering all the parts of these guns. Then there is a guide to these plates that gives the name of each part, thus making it an easy matter for a man to order any part of a gun which may give out. The cuts are among the finest ever made of guns, and are printed in brown ink, which brings out the details of make, finish and ornamentation in a way rarely equaled. The descriptive and explanatory text is full and complete, and altogether the catalogue is necessary to the well being of every shooter in the country. All shot gun shooters should send for this catalogue at once. When doing so please mention RECREATION.

ON THE 20TH CENTURY LIMITED.

This for the New York Central's "Twentieth Century Limited" is a moonlight courting of the muse:

Mounting space at a wonderful rate,
Connecting the ends of the Empire State,
Rushing through forest and rolling through vale,
Climbing the hills and skirting the dale;
With a wing as fleet as the god of light,
Two lines of steel to guide its flight,
A grizzled man at the lever stood,
Promising himself that he'd "make good";
While behind him rolled in palatial style
Coaches filled with the rank and file,—
Men of finance, of letters and rail,
Ready to cheer with jovous hail
The greatest train that ever was run,
From the rising to the setting sun.
And thus it was with the "T. C. T.,"
The swiftest of all on the N. Y. C.

—J. E. B. in the Buffalo Commercial.

The Southern Railway Company has issued a handsomely illustrated pamphlet telling all about where to find various kinds of game in the South, and how to reach these different localities. The book also contains synopses of the game laws of various Southern States. Also a list of stations on the line of the Southern system, and its tributaries in the vicinity of which good shooting may be had. In this table will be found the names of good hotels and boarding houses; the names of responsible guides, their wages per day; names of business men who will give information to intending visitors, etc.

There are many pictures in this book which will awaken pleasant anticipations in the minds of any sportsmen who may chance to look at them. In case you send for a copy of the book, please mention RECREATION.

The N. K. Fairbank Company, Chicago, are offering to send the Fairy calendar for the gold circles from 10 Glycerine Tar Soap cartons. This year's calendar is made up of 5 large plaques, 4 of which do not contain any type matter but are exact reproductions of hand painted royal Vienna china, in 12 colors and gold, showing magnificent heads by Ryland.

These works of Ryland had to be copied with the greatest care by the best artists, then photographed, engraved on stone and put on through 12 successive printings, on the highest grade of plate paper.

Those who prefer, may, instead of the 10 gold circles from Fairbank's Glycerine Tar Soap box fronts, send 20 cents in stamps and secure the Fairy plate calendar for 1903.

I have received a handsome and interesting little book entitled, "Waterfowl along the Wisconsin Central Railway," which contains a great deal of interesting data for sportsmen. It is illustrated with pictures of many species of wild ducks and geese, and the descriptive text is full and complete. The book also contains a list of the names of stations on the Central where good shooting may be had, together with the names of hotels and boarding houses, rates charged by same, lakes and streams in each vicinity, distance of each from stations, etc.

Copies of this pamphlet may be had free by addressing J. C. Pond, G. P. A., Milwaukee, Wisconsin, and mentioning RECREATION.

The Natural Food Company, Niagara Falls, N. Y., has issued a book entitled "The Vital Question," which should be in the hands of every woman interested in providing pure and healthful food for a family. These people make the Shredded Wheat Biscuits, and in this book they tell how to prepare them, and how to make from them many delicious and inviting dishes. The book is a work of art, all the pictures being lithographed in colors, and it is well worth the having. It will be sent free to any woman who may ask for it, and who will say she saw it mentioned in RECREATION. Please send for it and do not forget to say where and how you learned about it.

The Wing Piano Co., No. 226 East 12th street, New York, has demonstrated in a practical way the value of honesty, energy, and keen discrimination in the building up of a great business. This house has been in business nearly 50 years, and has a reputation it may well feel proud of. Its great business has been created by judicious advertising and by dealing fairly and honestly with customers. I know several people who have Wing pianos in their houses, and who say they are fully up to the standard of the oldest and best known instruments in existence. If you have any idea of buying a piano, write Wing & Son and say you saw their ad in RECREATION.

H. J. Putman & Co.,
Minneapolis, Minn.

Dear Sirs:

The pair of boots, No. 678, which you made for me last August, have proven highly satisfactory. They have stood the rough usage in this mountainous country without any signs of wear, and are the best boots for engineering work that I have ever worn. Their waterproof qualities are just the thing for this climate.

Respectfully,
J. M. Belknap,
Asst. Engr., U. S. Engr. Corps.

The Conley Manufacturing Co., St. Joseph, Mo., writes me it has discontinued the use of rubberized duck for hunting coats, because of certain objectionable features that material has, and that the company has adopted instead the famous English khaki cloth, the same as used by the War Department for army uniforms. This material is practically noiseless in the brush, is of lighter weight, is waterproof and looks much better than the rubberized duck. Samples sent free on receipt of request, mentioning RECREATION.

F. C. Huyck & Sons, Albany, New York, have issued a handsome little book describing and illustrating their steamer rugs, sleigh rugs, automobile rugs, golf capes, lap robes, etc. The pictures in this book show how comfortable people may make themselves, even in stormy weather, if provided with the right kind of goods; and Huycks make the right kind. It would pay you to have a copy of this little book, and when you write for it, please say you saw it mentioned in RECREATION.

Did you ever notice that all through the hot weather Page fence did not sag between the posts? That is because all the horizontal wires are coiled, or spiralled, so they will let out and take up like a spring. The wire must be a great deal tougher and stronger than common Bessemer fence wire to make a coiled spring. We make our own wire because we have to use better wire. Page Woven Wire Fence Co., Adrian, Michigan.

The Edward Smith Indian Post Trading Company, of Flagstaff, Arizona, dealers in Navajo blankets, Indian pottery, baskets, curios, etc., with to engage several energetic, enterprising men to act as agents for their goods in Boston, New York, Philadelphia and Washington. The present great interest in Indian goods throughout the country should make the sale of them profitable and offer a good business opportunity.

Penn Yan, N. Y.

WEST END FURNITURE CO.

Dear Sirs—Your gun cabinet received and we are much pleased with it. It is a first class piece of furniture and speaks well for your firm.

Yours truly,
Mrs. Joel Egleston.

EDITOR'S CORNER.

THE LEAGUE DID A LARGE PART OF IT.

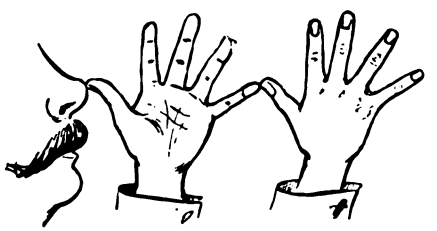
In 1898 B. B. Odell was elected Governor of New York by a majority of 110,000. During the winter of 1901-2 he secured the enactment of a law permitting game dealers in this State to possess game throughout the year. This in direct opposition to the best interests of game protection. Furthermore, he vetoed a bill of which this League had secured the passage, to prohibit the sale of ruffed grouse.

In the campaign just closed Governor Odell was re-elected by a majority of less than 12,000. You can draw your own conclusion.

Notice is hereby served on Mr. Odell and the Republican members of the New York Assembly that unless the cold storage bill is repealed, and unless the League bill for the prohibition of the sale of ruffed grouse, woodcock and quails is enacted during the coming winter, the League will swing at least 5 times as many votes from the Republican to the Democratic party in the next election, as it did in this one.

MY CHRISTMAS GREETINGS.

TO MY FRIENDS.



TO MY ENEMIES.

DOES NOT LIKE HIS OTHER NAME.

Office of
Charles O. Jackola,
Justice of the Peace, Notary Public.
Collections and Conveyancing.

Calumet, Mich., Oct. 4th, 1902.

G. O. SHIELDS,
23 West 24th St., New York.

Sir: I have read your libelous article in October "Recreation" under the heading "Another Bunch of Michigan Swine" which refers to C. J. Wickstrom and myself of this city. Now Mr. Shields, in the first place go to your conscience (if you have one) and reflect a moment on the word "swine." You could not have found more libelous word in the dictionary. Now, do you not feel a little guilty of having left your animal nature to predominate over all conventionality and human propriety?—Now, do not think that you are doing a great humanitarian mission by calling people swine.

In the first instance our communication to you, at your own request was a private and priviledged one and in noway intended to fill the vacant space of your publication. In your letter to us you did not ask any information in regard to the catch of fish for purposes of publication. However, you have taken the authority to do so, and have thus violated every rule of private and priviledged communications. I presume you know that the law in this regard is very strict; at least you ought to know that you have no right to publish any private letters without first obtaining permission.

After having violated the laws and custom in this regard, then you go and libel and slander us in the most outrageous manner, which deserves, and rightly so, contempt and shame from every American.

It makes no difference to you, your publication or anyone else whether we caught one or a thousand punds of fish as long as they were caught legitimately; and you have no right to make inferences to suit your own fancy and then publish them unlawfully in a slanderous and libelous manner. For you future information and knowledge, let me tell you that we here understand the game and fish laws as well as you, perhaps better and enforce them when they are violated. It might be well for you to know also that we have the *human intelligence* to catch fish without seines or hand lines, as you would like have the readers of your publication to believe. I am ready to submit affidavits at any time and will do it when the proper time comes, that every fish caught by us was caught

legitimately. Further more we can get the game warden's affidavit to that effect. The game warden lives there at Lac La Belle, where the fish was caught, and saw us fishing.

We feel that you have wrongfully, maliciously and unlawfully slandered and libelled us and done us a great injustice and brought our names into disrespect and scandal. Now, what we want is fair play in this matter; we want you to retract every portion of your contemptuous article and make an apology like a man. And unless you do this we intent to push this thing to its bitterest end. We will give you this one change, so decide at once what you propose to do and wire or write to us. And remember that all our letters hereafter are not for publication until they should come before the court. Yours, etc.,

(Signed) Charles O. Jackola.

One way to avoid being called "a swine" is not to be one.—EDITOR.

400 QUAILS SAVED FOR SEED.

In the early part of October last the South Carolina Club, of Columbia, placed an order with a game dealer for 400 quails to be served at its annual banquet, which was to be given October 30th. South Carolina, in common with many other States, has a law prohibiting the sale of quails at any time. The game dealer in question arranged to get the quails from North Carolina, and hoped in that way to evade the local law. North Carolina has a law on her statute books prohibiting the export of quails from that State. The dealer said he could have the birds smuggled out of North Carolina and into the ice box of the club without being caught at it.

As soon as it became known that this order for quails had been placed, Mr. C. F. Dill, chief warden of the South Carolina division of the L. A. S., wrote the president of the club calling his attention to existing laws in the 2 States named, as well as to those of neighboring States, and requested that the order for quails be countermanded. A long correspondence ensued between Mr. Dill and the club, in which 2 or 3 other people finally took a hand. I was promptly notified of this proposed wholesale violation of the game laws of North Carolina, and at once communicated the facts to Dr. T. S. Palmer, of the Agricultural Department, suggesting that he also take steps to head off these would-be law breakers. He placed the matter in the hands of the Department of Justice, and notified the president of the South Carolina Club that in case he persisted in his efforts to walk over the statute books, he and his associates might expect to find themselves facing a United States judge.

For a time the president of the club assumed a defiant attitude; but finally concluded that discretion would be the better part of valor. The quail order was accordingly countermanded and the club decided to serve turkeys instead of quails. This was a wise change of mind on the part of the club officers. Turkeys are good enough for any man who does not care to go afield and kill game, and they are much cheaper at 15 cents a pound than quails are at $25 each. It is safe to say that if these gentlemen had persisted in their determination to eat quails, they would have had to pay at least that price for them, eventually.

Mr. Dill and Dr. Palmer are entitled to the gratitude of every sportsman in the country for their manly and vigorous action in this case, and all those in North Carolina and South Carolina would promptly join the League if they could be made to realize how much they owe it for having headed off this proposed wholesale destruction of their quails.

Jack Barberis, who keeps an alleged restaurant in Seattle, Washington, was recently fined $25 by Judge George for having 7 ruffed grouse in possession, in violation of law. Game Warden Hill and Deputy Warden Springer had previously made a descent on Barberis' shop, armed with a search warrant. Barberis said emphatically that he had no game of any kind in his house. The wardens were not satisfied with that statement and searched the premises. They found the birds in a box, covered with a few slabs of pork. When they began to open the box Barberis gave a war dance about them and reiterated the statement that there was no game in the box or in the house; that there was nothing in that box but pork. He was arrested, taken to court, and then pleaded guilty. The penalty provided by the State law for this offence is $100, and sportsmen interested in the case would like to have Judge George explain why he ignored the statute in fixing the charge at $25. It is safe to say that all decent sportsmen in Seattle, and those who go there in future, will steer clear of Barberis' house.

A rash and rambunctious raccoon
Tried to whistle a popular tune;
But he blew out his teeth,
Both above and beneath,
And is taking his food with a spoon.
—Life.

RECREATION is the finest magazine ever published. D. B. Kirk, Mt. Vernon, O.

Can anyone suppose that we would double the necessary cost of our brewing without a vital reason.

Would we spend so much on cleanliness? Would we cool the beer in plate glass rooms? Would we filter all the air that touches it? Would we age it for months in refrigerating rooms? Would we filter it? Would we sterilize every bottle after it is sealed?

Can anyone suppose that it is our good—rather than your good—that we serve by it?

Schlitz

We do it to attain absolute purity—to avoid the remotest possibility of germs—to make Schlitz Beer healthful—to escape the cause of biliousness; the lack of age and proper fermentation.

Why accept a common beer—brewed without any of these precautions—when Schlitz Beer costs no more?

Your dealer may prefer to furnish a beer that pays a little more profit; but does it pay you to permit it? Isn't pure beer—Schlitz Beer—worth asking for? *Ask for the Brewery Bottling.*

A FAMILY HUNT.

Hot Springs, Neb.

Editor RECREATION:

Seeing an article in one of last year's RECREATIONS, called "An Elk Hunt," near the Lamereux meadows, recalls a hunting trip which my parents, brothers and I made in '89. We lived in Fremont county, Wyoming, 25 miles Southwest of Lander, and had been accustomed to plenty of small game and small trout ever since settling there. We had always heard of the excellent hunting and fishing to be had at the head of the Sandies and determined to take a trip to this hunters' paradise, to find out for ourselves if the reports we had heard were true. Accordingly we started, the 3d day of August, prepared to spend a few days or weeks as might be necessary.

We took a spring wagon, a good team and 3 saddle horses. Our equipment consisted of a tent and camp outfit, a good supply of guns, ammunition and fishing tackle. We spent a week or more in reaching our destination, hunting and fishing here and there with little success. At last the trails got so scarce and narrow, the trees so thick and the bogs so numerous, that we were obliged to abandon our wagon and proceed by pack horse, which we did for a distance of 8 or 10 miles to a spot where we felt sure no other white person had ever been and where civilization would not interfere with our sport in any way. We camped about noon and after a hasty lunch prepared for a raid on the trout. All turned out, and although a shower came up during the afternoon and drove part of us to the shelter of the tent some stayed out. At night we had 87 fish, large and small. We were not hogs. Not one of those fish went to waste; neither did we make any donations, for our party consisted of 4 healthy boys and my father and mother and we had been camping out over a week.

Next morning at break of day my eldest brother, Bert, started out with a 45-70 rifle, and the avowed intention of getting an elk. Nothing was heard from him till the sun was just peeping over Fremont peak and we were sitting down to breakfast. Then a rifle shot broke the stillness. A few minutes later Bert came into camp holding up a pair of bloody hands. His one shot had been successful.

He had killed a fine 2-year old cow elk. My father started out after breakfast and returned before 10 o'clock with the information that he had killed another cow, having shot but once. The 2 animals were brought to camp and properly dressed for packing. Next morning we broke camp, for we had all the meat we wanted and there was nothing to remain for. We got both elk out safe. Reluctantly we went, for it certainly was a hunters' paradise.

E. T. Ussher.

TWO DOGS, A BOY AND A MINK.

When I was 9 years old I happened to hear my father say that mink skins were worth 50 cents to $2 each. Knowing mink tracks when I saw them and having seen them often, I at once determined to go into the fur business. I tried to get next to the old gentleman and jolly him into buying me some traps, only to be told that I had not gumption enough to catch a mink in an ordinary lifetime.

Thus rebuked I slipped to bed with my thinker working overtime. Before I slept I had matured a scheme. I had 2 rattling good rabbit dogs, and such was my high opinion of their ability and adaptability that I decided to use them as mink catchers.

Old Tip was a white, black and tan shepherd, and could whip any dog in the county. Spring was just a yellow mongrel, but not to be despised. If I wanted a chicken she would gather it in in a moment, and she could hold the biggest hog on the place until it got tired of squealing.

The next day I went out to begin my career as a trapper. It was no trouble to find a mink track, but as I whistled the dogs to it a rabbit popped out of a bush and off we all went in his wake. I spent an hour trying to punch bunny out from under a ledge of rock. Then I went back to my mink track. On the way we jumped another cottontail and away went the dogs again.

Thoroughly disgusted, I trailed my mink alone. The tracks wound in and out of the slough and finally led to higher ground and a hole. There was no track leading away from the hole. I considered that mink already mine and began calculating how many traps his pelt would buy.

When the dogs returned they nosed and dug furiously. I helped, and as the hole was shallow, we soon had the mink in close quarters. I was prying out a stone when the animal thrust his head out almost under my foot. Tip nailed him in a jiffy, getting a good grip on his neck. Spring sank his teeth in the poor mink's haunches. Then a tug of war ensued, both dogs pulling their hardest. I whooped them on. Already I possessed traps, skates, sled and unstinted candy.

Alas! my joy was premature. With a horrid rending sound my beautiful mink skin was torn asunder and the dogs fell back, each holding a shredded fragment. Tearfully I gathered up the remnants and trudged homeward, firmly convinced that for mink catching purposes one dog was better than 2. C. L. Hart, Humeston, Ia.

J. A. Steele's solution of the game protection problem, namely muzzle loading guns, is the correct one. I should like to shake hands with Mr. Steele. Game in this part of the State is about gone.

H. M. Putnam, Fredonia, N. Y.

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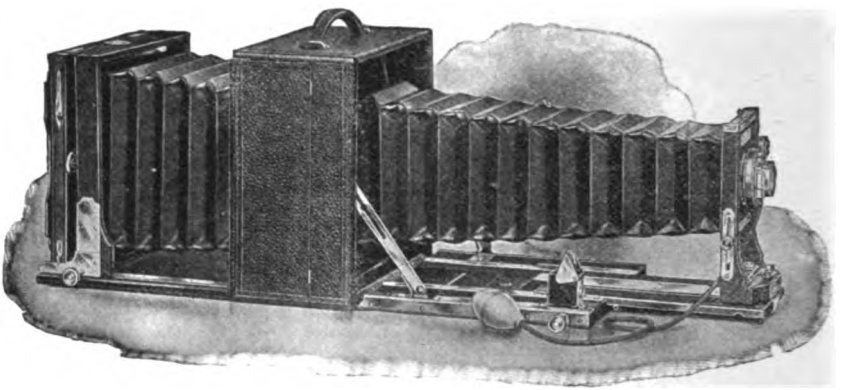

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Century Grand

THIS is the only camera in the market having both front and rear extension of bellows—made in the Cycle form, and therefore is by far the most compact and portable. An idea of the DIFFERENCE in size between the "Century" and others can be obtained when we state that the 5 x 7 Long Focus Century Grand, closed, measures only 5¼ x 9⅞ x 10 inches, yet has the maximum length of bellows. Fitted with Reversible Back, Double Swing, Double Sliding Front, Automatic Bed Lock, Three-focus Convertible Lens, Latest Automatic Shutter, Triple-lens Brilliant Finder—in fact all improvements that have made the "Centurys" famous. It is one of our leaders and we are proud of it. We manufacture all kinds of cameras. **Ask your dealer for catalogue or write us.**

CENTURY CAMERA CO., ROCHESTER, N. Y.

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AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

MAKING THE NEGATIVE.

E. T. CALDWELL.

Without a good negative it is impossible to turn out a perfect picture. It is, then, important that amateurs fully understand this first step of the photographic art.

Most brands of dry plates will yield good negatives if properly handled. The exposure, of course, has much to do with the result. There is just that right amount of time to expose which gives clear, crisp plates. More time wi l give flatness; less, too thin and weak a negative. With rectilinear lenses working with stop f. 16, 1-5 second would be about the correct time. For f. 64, 2 seconds, in bright weather. The smaller the diaphragm the more sharpness and depth will be obtained.

Pyrogallic acid is the developing agent most generally used. Its tendency to stain is its one objectionable feature. I find metol hydrochinone gives a much better plate, bringing out detail which it would be impossible to secure with other developers in short exposures. It is cheap, keeps well, is free from stain and can also be used for bromide papers.

A simple form of developer is made as follows:

No. 1 Solution.

Pyrogallic acid	1 ounce.
Sulphite soda	6 ounces.
Hot water	16 ounces.

No. 2 Solution.

Water	16 ounces.
Carbonate soda	4 ounces.

For a normal developer take of No. 1, ½ ounce; of No. 2, ½ ounce; water, 3 ounces. This strength is suitable for most exposures. The No. 1 solution gives density; the No. 2, detail. More water retards development, and equal parts of one and 2 will quicken it. Heat will quicken and cold retard its action; 60 to 70 degrees is about the right temperature. Extreme heat will cause the gelatine film to soften and frill. In hot weather the developing tray may be placed in another containing ice. Developing solution may be used over and over, and when old gives more contrast. Keep the solution which is in use in one bottle and strengthen as required from one and 2.

Another good developer is made as follows:

1. Metol	1 ounce.
Sulphite soda	3 ounces.
Water	32 ounces.
2. Hydrochinone	1 ounce.
Sulphite soda	6 ounces.
Water	32 ounces.
3. Carbonate soda (sal soda)	4 ounces.
Water	16 ounces.

Take ½ of each and 3 ounces cold water for a normal developer. This will yield fine, soft negatives. More of No. 2 will give density and harshness. This is good also for all platino-bromide papers.

After the plate is exposed, prepare the hypo for fixing in one tray, in the dark room. Four ounces water to 4 ounces hypo is about right. Close door of dark room and by the light of the ruby lantern remove plate from holder. It is sometimes best to place the plate in cold water a few minutes before developing, making it less liable to spot. Lay the plate in the tray, pour the developer over it, and gently rock the tray. In a few seconds the lighter portion of the image will appear if correctly exposed. It is best not to have the solution work too fast. Keep it well under control, bringing the picture out gradually. Continue until the picture begins to fade from its first bright appearance. Rinse in cold water and place in hypo; leave until the white is entirely eaten away; wash ½ hour, changing the water 2 or 3 times. Then place in a rack to dry, preferably in a draught of cold, dry air.

Where a plate is much under timed placing it in a solution of soda 5 minutes before developing and then proceeding as usual will bring out detail which can not be obtained otherwise. The solution should be prepared as follows: Saturated solution of carbonate soda, ½ ounce; water, 6 ounces. Begin development of greatly undertimed plates with a weak solution, gradually increasing the strength of the developer. If over timed, add bromide to the weak developer. Negatives too thin and faint may be intensified; and those too dense and hard, reduced with the following: Ferrocyanide of potassium, one ounce; water, 16 ounces. To reduce, immerse the plate a few minutes in a hypo solution of one ounce to a pint of water, adding the ferrocyanide a little at a time. The more added the more the plate will be reduced. Wash well and dry.

Orthochromatic plates are more sensitive to orange, yellow and green. The finer details of foliage will be retained by their use, and a distant mountain against a sky will show better. They are developed the same as other plates. A negative of good density prints out best. A flat, poor negative will not yield a good print by any process.

Plates may be reduced locally with a camel's hair brush wet in the reducing solution.

WHY USE RAPID PLATES?

By using slow plates nearly all photographic troubles would vanish into thin air. The slow plate gives a greater latitude in the exposure. Every plate has its minimum and maximum exposure for a good negative to result, the midway between minimum and maximum giving in all cases the best results, provided always development is properly carried out. In the slow brands of plates there is far greater range between the 2 points mentioned than there is in the ultra rapid ones; hence the slower ones give a far greater latitude. For this reason exposure with slow plates does not need to be so exact as with the more rapid ones.

The ultra rapid series of plates require far greater care in handling at all stages, being more susceptible to fog, and for this reason one's dark room lamp must be such that it gives a ruby light of a safe nature. Such a ruby light is often trying to the eyes, and more than this, one is not able to watch development so closely as if a better light was employed. Often one is not able, from the use of too dim a light, to see what is going on in time to check it. Again, fast plates, desnite what is said to the contrary, are more liable to chemical fog early in development, and are often, in any but experienced hands, incapable of rendering the half tones in a proper manner. In fact, it will often be found that a maker's rapid plates are inferior in quality to his slow ones.

By using a slow plate a brighter light can be used in the dark room. For this reason the development proceedings can be more plainly seen and regulated. By giving a somewhat full exposure a negative can be produced containing a full range of half tones, crisp and bright prints being the result, as against the flat and foggy prints often seen or the soot and whitewash prints.

The greatest danger when using an ultra rapid plate is that of over exposure, which flashes up at once, with the result that most amateurs get frightened, and throw the negative into the fixing bath before it is time; result, a flat, unprintable negative.

Hence, use for general work, except in extreme cases, the slow or ordinary brand of plates. Give an exposure as nearly correct as possible and use a normal developer. —Photo Chronicle.

HOW TO USE CYKO PAPER.

I was much interested in what J. C. C. says in May RECREATION about Cyko paper. A year ago I was in Idaho and sent to a Chicago concern for some Cyko paper and Cyko developer. The paper worked nicely until it reached the washing stage; then trouble came in the shape of blisters. In order to save any prints I had to reduce the time of washing to ¼ of that specified in the directions. I sent a blistered print to my dealer and asked advice. Another lot of paper was sent me, and I was told that the first batch might have been an old emulsion. The new paper was worse than the old, and began to blister the moment it was put in water. However, the few prints I succeeded in saving were beautiful. Should be glad to learn more about this paper from those who have used it.

J. E. Bates, Spokane, Wash.

I referred the foregoing letter to an expert photographer, who replies as follows:

The blistering of prints made on Cyko paper is most frequently caused by having the printing frame too close to the light while exposing, thus allowing the negative and the paper to become heated. To obtain the best results with Cyko paper this should be avoided, and special care should be taken to keep the fixing bath acid, as with each sheet placed in the fixing bath a certain quantity of alkali is carried into the bath from the developer. As the fixing bath is inexpensive it is advisable to procure a new bath when the one in use shows signs of deterioration. The Anthony & Scovill Company, 122-124 Fifth avenue, New York, who are the general agents for this paper, have prepared a special manual for the manipulation of Cyko paper, which they will forward to any person asking for it. This book is complete, and contains many valuable hints on the manipulation of developing papers.

TO CLEAN LENSES.

Kindly advise me the best method and material for cleaning lenses.

M. P. Staulcup, Meriden, Conn.

ANSWER.

For removing dust and other substances from the surfaces of lenses there is absolutely nothing which equals an old, worn linen pocket handkerchief or an old piece of fine cotton cloth which is nearly worn out from washing and use. The glass of which lenses are made is usually somewhat softer than window glass, or glass used for glass dishes and similar articles, consequently it requires more care in cleaning, lest the substance in the dust or other material collected on the lens surfaces should cause scratches by being rubbed across it. For ordinary cleaning the lens surfaces may be dusted with rag first, then breathed gently on and wiped gently with cloth, taking care to have an abundance of the cloth between the finger and the lens, so as not to press too hard on

the surface. If dirt is not removed by this means, a cloth may be slightly moistened and the surface gently wiped with it afterward being dried thoroughly with a dry portion of the cloth. Continued gentle wiping and polishing of the surfaces with the cloth will generally remove all traces of materials which may have collected. If neither the moisture nor the wiping will remove substances the chances are that they are of an oily or resinous nature. In that case polish the surface of the lens with a cloth slightly moistened with pure alcohol, taking care not to allow it to touch the mount. After wiping a few times polish thoroughly with a dry portion of the cloth. Any lens is improved by being frequently polished with a dry cloth, first breathing on the surface of the lens. A lens may deteriorate considerably in speed through the collection of a fine film of dust which is scarcely noticeable.—EDITOR.

DUE TO EXPOSURE.

What dry plates are best for photographing mountain scenery? How are non-halation plates for such work? What causes the grayish and spotted whites on Velox gloss paper? I use M. I. developer and plenty of bromide of potassium, but can not get good effects. I used same developer on carbon Velox and it worked all right.

What will remove hypo stains from negatives which have been improperly washed?

I have not missed a copy of your valuable magazine in 3 years. I take great pleasure in the pages devoted to photography and guns and ammunition, as they give a great deal of valuable information.

R. Ralph Garinger, Pueblo, Colo.

ANSWER.

Each plate manufacturer would claim his plate to be the best. A non-halation plate has nothing of advantage except where there is halation to avoid, which would be liable to occur in taking a mountain scene. The negative being good, this difficulty is due either to over exposure and under development or else under exposure and forced development. The fact that you had good results on another trial would indicate that the difficulty is due to exposure.

I do not consider it practical to remove hypo stains from the negative, and advise thorough washing so there will be no stains.—EDITOR.

A CHEAP PRINTING PROCESS.

The photographer who desires to turn out prints on an economical basis has plenty of methods among which to make his selection. Generally speaking, those which employ bichromate salts will be found the most economical. Among these is the process recently put forward employing mercuric nitrate. It is carried out by immersing ordinary paper in a 10 per cent solution of bichromate 5 minutes, and drying it in the dark. When dry, it is ready for printing, which must be done in a good light, and which results in a visible image of a reddish color, but not strong. When the shadows are distinctly visible, the printing is finished, and the paper must be washed in water until the whites are clear, after which it should be immersed in a bath made by dissolving 80 grains of mercuric nitrate and 20 grains of potassium bichromate in an ounce of water. This solution should be made some hours before use, and allowed to stand until required, when it may be filtered, and is then ready. The resulting liquid, which is green, will gradually turn the picture to a pleasant red tone, after which it may be washed and dried. To obtain a brown tone, treat the print with 60 minims of strong ammonia to an ounce of water, washing well between the mercury bath and that containing the ammonia. These prints can be toned in ordinary gold toning baths, in which they gradually turn to purple.—Exchange.

TO INTENSIFY NEGATIVES.

In January, 1901, RECREATION, you published a formula for intensifying negatives. My druggist has tried several times to compound it for me, but can not mix the nitrate of silver and cyanide of potash in in the quantity named. Will you kindly tell me how it can be done?

James H. Miller, Lowville, N. Y.

If the silver is good it will dissolve in one dram of water. However, you can use 90 minims or more if necessary, but enough must be left for the cyanide.

The Monckhoven formula is the best intensifying material on earth. It develops negatives and works wonders with flat, under developed, over exposed negatives.

A. Distilled water..... 1 ounce.
Bromode of potash.....10 grains.
Bichloride of Mercury.....10 grains.
B. Distilled water..... 1 ounce.
Nitrate of silver.....10 grains.
Cyanide of potash C. P.....10 grains.
danger that my scholars will ever be game

In making B. dissolve the silver in a dram of the water, the cyanide in the remaining 7 drams. Mix, and when settled and clear it is ready to use. Bleach the plate in A. till white. The longer it bleaches the more intensity will ensue. Rinse well and blacken in B. Work in daylight, but not near a window. Both solutions are poisonous.—EDITOR.

SNAP SHOTS.

I have had poor luck in taking pictures of water. What are the proper stop and time in taking a picture of water in bright sunlight? In developing plates of this kind should they be carried in the developer until the yellow disappears from the plate, the same as other plates? I use Eastman's pyro in glass tubes for all kinds of plates. Will your answer for this apply to taking cloud pictures? If not, please explain, as I have failed in that kind of work. In using a ray filter, how much longer should the exposure be than without it?

ANSWER.

Use a small stop and rapid exposure, 1-100 second. Do not carry the development so far that the delicate half-tones are lost.

This advice applies also to cloud work.

In using a ray filter allow an exposure 2 to 6 times longer than without it, depending on the color of the filter.—EDITOR.

I have taken several pictures indoors of late and developed some until the image seemed to come out as far as necessary, but when I tried to fix the plate the image went off as the plate cleared, till by the time the plate was clear the image had almost disappeared. I have never had anything of the kind occur with plates exposed outdoors. Please let me know the cause and the remedy. I use pyro developer.

C. E. Wilson, Mt. Carbon, Colo.

ANSWER.

You probably do not carry your plate far enough in the developer.

For interior work, try non-halation plates and a full exposure, carrying development farther than with ordinary plates. —EDITOR.

What will prevent pyro from staining the negative after fixing with plain hypo? Is pyro the best developer for clouds?

John R. Boulle, City Island, New York.

ANSWER.

Use fresh pyro developer and rinse plate well before fixing. Alum will lighten the stain.

Many expert photographers recommend pyro as the best developer, while others advise the use of different developers.—EDITOR.

To reproduce a negative it is not necessary to make a positive. Put negative and a fresh plate in the printing frame, expose to daylight, say 5 seconds and the result will be a negative from a negative, due to the great over exposure. It often happens, too, that a far better negative can be thus produced than the original by modifying the developer to some extent.—Exchange.

Dextrine makes an excellent mountant, sticky and not difficult to mix. Liesegang recommends 2 ounces of water, 20 grains nitrate of calcium and 80 grains of dextrine. Another authority gives equal parts alcohol and water, heated in a water bath, and dextrine stirred in till the consistency suits. Dextrine is quoted at 10 to 15 cents a pound.—The Photo-American.

Will you kindly inform me, through RECREATION, what camera you think is the best for a beginner?

A. M. P., Clifton, N. J.

Will some reader of RECREATION please answer?—EDITOR.

I have received the Laughlin fountain pen you sent me as a premium and am more than delighted with it. Please accept my sincere thanks. I can not tell you how much I like RECREATION. Five dollars would be a cheap price for the enjoyment I get out of a year's numbers. I am a school teacher and spend a portion of my summer vacation each year in a hunting and fishing trip. During the remainder of the year I have to content myself with what is nearly as good as such a trip, namely, the monthly appearance of RECREATION. Each new number is like a camping trip in some new region. I take my copies to the school house and allow my pupils to take them by turns for a few days. They are delighted with them, and I do not think there is any danger that my scholars will ever be game or fish hogs.

I am an amateur photographer and get much help from the photographic department of your magazine. When any new trouble arises I at once consult my back numbers and nearly always find a cure.

Geo. L. West, Redwood, N. Y.

Are you beginning to think what you can give your friends for Christmas presents? What could be more desirable than a yearly subscription to RECREATION? It is one of the most practicable and useful presents you could possibly give a man or boy who is interested in nature study, fishing, hunting, or amateur photography.

All boys instinctively love the woods. RECREATION teaches them to love and to study the birds and the animals to be found there. If you would have your son, your brother, your husband, or your sweetheart interested in nature let him read RECREATION. It costs only $1 a year and would make him happy 12 times a year.

The Kodak Way

You press the button — then do the rest

By the Kodak system every step in picture taking and picture making is accomplished in daylight—loading, unloading, developing, fixing, printing. The Kodak way gives better results than the old way, too.

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Ask your dealer or write us for the new booklet, "The Kodak Way."

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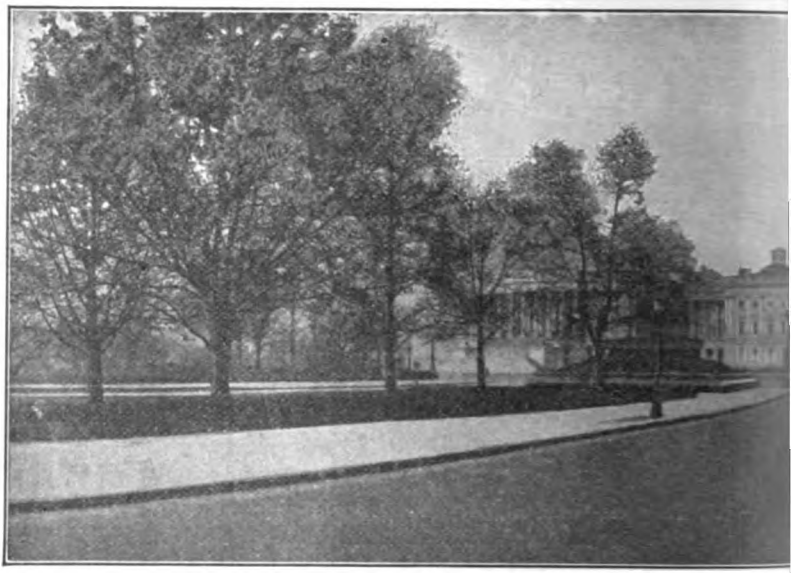

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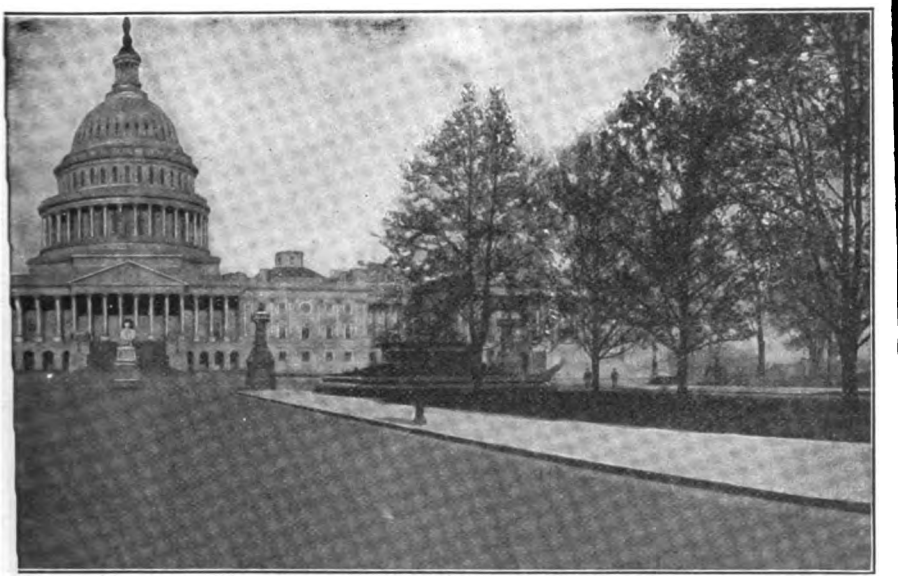

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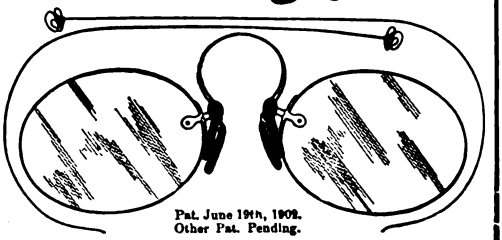

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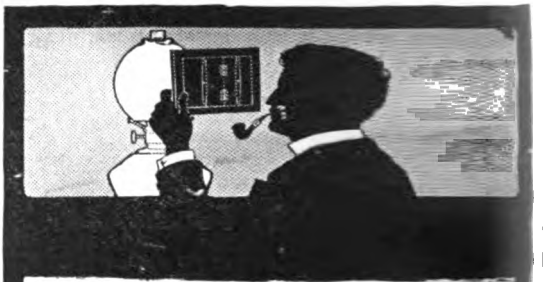

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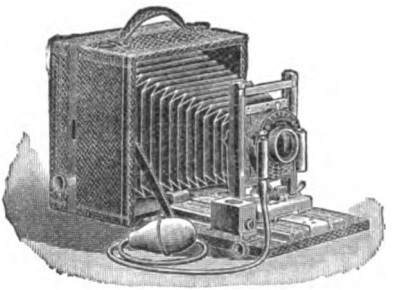

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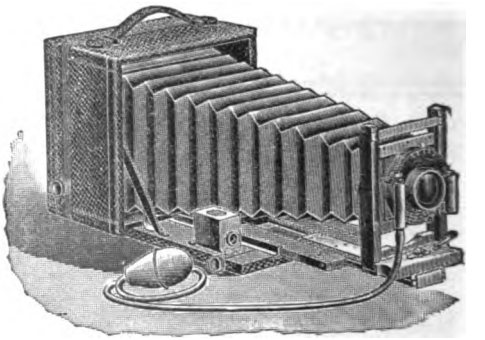

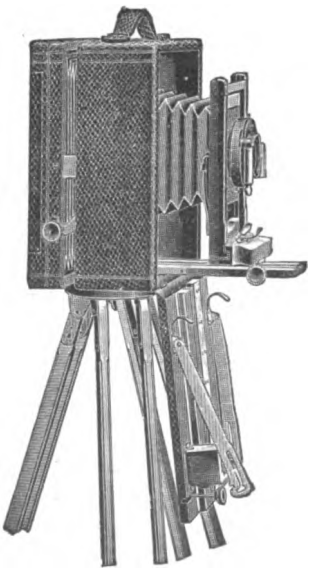

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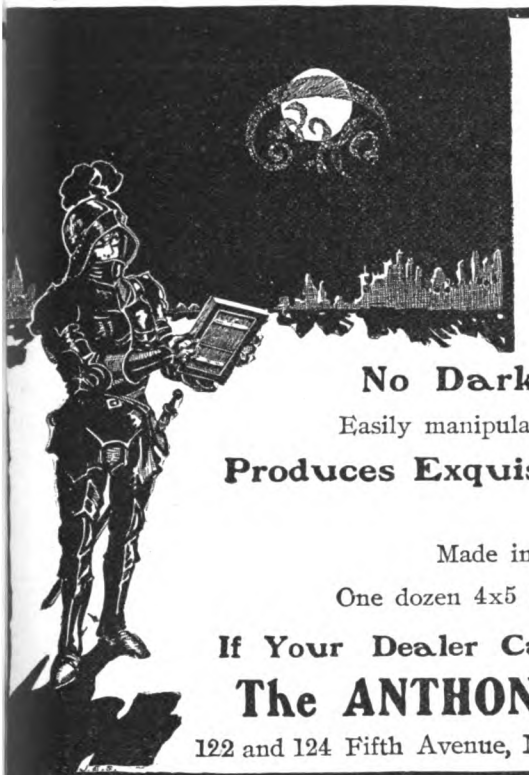

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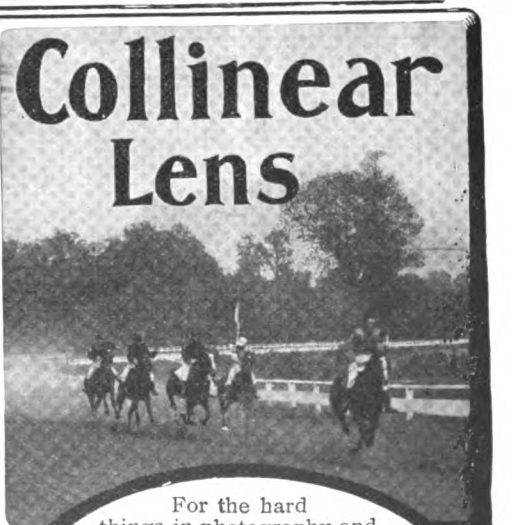

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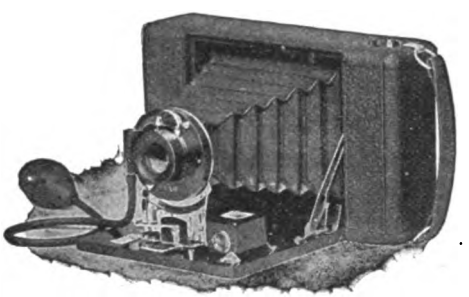

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MEXICAN ALLIGATORS.

Mexcallitan, Mex.

Editor RECREATION:

For the study of alligator nature this locality is unrivaled. Here he is everywhere in evidence, acting his will with little fear of man. The alligator is an animal of considerable intelligence. I have seen one head off a large fish in shallow water, corner and catch him. Step out of a canoe and hide on the bank, and if there is a 'gator in the vicinity he will swim slowly by, making observations. If he can see you at all he will stop and size you up, as if wishing to know what you are about.

They are not found hidden away in dark recesses, as I had expected. That may be the case where they have been much hunted and are shy. Here there is no other animal that so loves the broad daylight and warm sunshine. Three miles away is a favorite sunning place, where, on a bank, 100 or so can be found any bright day. If a canoe draws near they slide into the water one by one and lie with only the head showing. Many will allow the boat to get within 20 feet before diving. They dive by a backward jerk, the snout being last to disappear.

Having been requested to send 3 hides to San Francisco I went to this sunning place, landed, and hid among some bushes. In a few minutes a big 'gator floated up, blowing out his breath with a noise like a suction pump short of water. He crawled out and prepared to take a nap within 20 feet of me. A bullet a little below and back of the eye, and a cast of the harpoon to keep him from rolling into deep water, and he was mine. His struggles lasted but a few minutes. I left him as he lay for a decoy, and my order for "one large and 2 medium sized hides," was soon filled.

The natives surprised me by saying the alligator has no tongue. It is true he has none in the usual place for that organ; but I found what seems a tongue under the floor of the mouth. The animal has great trouble in getting a morsel in just the right position to swallow, managing it by throwing his head back a number of times, with his jaws wide open.

The 'gator has a peculiar odor, which at a distance might lead one to suppose him a member of genteel society; at close range, however, you know him for a rank pretender. A Mexican lady from the tableland told me she used perfume once after coming here, and only once. On that occasion a number of persons asked her, "What smells of alligator?"

'Gators 12 or 13 feet long are considered large in this section. They swim mostly by a snakelike motion of the tail. In 2 years spent here I have known of but one man being bitten by n alligator. He, poor fellow, after 5 weeks in bed, had still 5 holes in his thigh, each large enough to admit the index finger to the first joint.

Ed. M. Williams.

A GAMEY HOG.

G. W. SMITH.

During the fall of 1893 I was station agent at a little city in Southern Kansas, near the Indian Territory line. Game was abundant, and being a lover of rod and gun, I soon made the acquaintance of a cattleman whom I will call Ed Hewins. He owned a ranch of 2,000 acres, bountifully stocked with quails, prairie chickens, rabbits and squirrels. Mr. Hewins gave me leave to hunt and fish on his land, and I had many a day of sport shooting quails, over my old pointer Sport.

One afternoon in November, I took my favorite 12 bore, slipped a few quail loads into my pocket, and, with a younger brother and my dog, set out in quest of game. We had gone perhaps a mile from the station, when Sport came to a stiff point, near a hazel thicket. Told to flush, he raised a covey of quails, and I succeeded in grassing one with each barrel. The others flew some 300 yards and scattered in the open field. We had some excellent sport, and, after finding I had birds enough for our dinner, and but one remaining shell, we started to return home.

When we had gone a short distance, I noticed Sport strike a scent, and with the wind in his favor proceed cautiously up a draw to the crest of the ridge. There, where some passing wagon had dropped a bunch of hay, he came to a staunch point. Thinking it was merely a cottontail, I stepped in ahead of the dog and gave the bunch a violent kick. To my utter amazement I was confronted by a wild boar, which proceeded to make things interesting for the next few moments.

With open mouth, catlike eyes glistening like balls of fire, tusks which seemed to me as large as an elephant's, he made a vicious charge. I happily avoided this, only to be confronted with another attack more determined than the first. Seeing it was to be a fight to the finish, I side-stepped and bringing the muzzle of my gun just behind his shoulder, fired. Some pellets of the charge of No. 8 shot reached his spine, with the effect of paralyzing his hind quarters. There was plenty of fight left in him, however, and as I had no more ammunition, I beat a retreat. At the station I obtained a rifle, and returning, despatched the boar with it.

There are probably more deer in Connecticut to-day than at any previous time within 150 years. They are seen on railroad tracks, in fields and gardens, and even feeding with domestic cattle. Where they all come from, and what is drawing or sending them here, is not clear. They are not only seen in most unexpected places, but appear singularly free from fear of human beings. They are seen, too, in nearly all parts of the State.—Hartford Times.

Mr. Marryat.—I see old Roxley has left an estate worth $2,000,000. Wouldn't you like to be his widow? Mrs. Marryat (ambiguously)—No, dear; I'd rather be yours. —Philadelphia Press.

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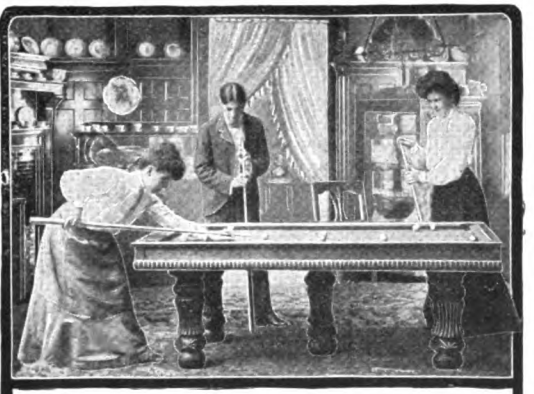

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FROM NORTON SOUND.

There is, or perhaps I should say has been, gold in this part of Alaska. I know 2 young fellows who rocked out $4,480 in about 15 days on the beach. Another friend took out $16 from a bucketful of beach sand. However, I do not advise anyone to come here next year expecting to find gold on the beach. It has been thoroughly turned over, and besides there will undoubtedly be a great rush of men here next year. The claims on the creeks are only worked from the middle of June until the latter part of September.

There is not much to interest a sportsman in this part of Alaska or on Kotzebue sound, where I spent a year before coming here. On one occasion we located a band of mountain sheep in a rugged range of mountains at the head of the Kogoluktuk. However, we only found the sheep the day before we were to start on our return trip, and could not spend any time hunting them. We saw many signs of otters and wolverines, but did not get sight of any. We had to travel on skis, or snowshoes. The skis made much a grating on the crisp snow that a wolverine could hear us long before we could see him.

About the only shooting we had except the ducks and geese in summer were ptarmigans. In the early fall the old cock ptarmigans are as gamy as could be wished. When flushed they start up with a cackle that is rather startling. One does not like to shoot ducks in the breeding season, but in Kotzebue it was duck or no meat, and there was so much scurvy in the country that fresh meat was almost a necessity when we could get it.

E. L. Stevenson, Cape Nome, Alaska.

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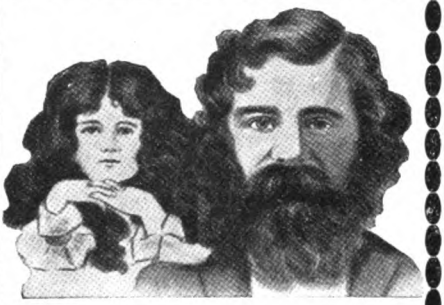

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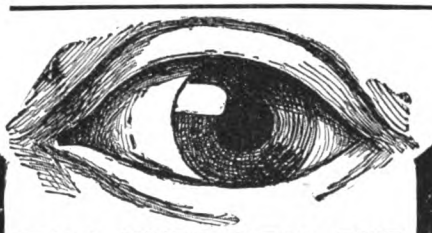

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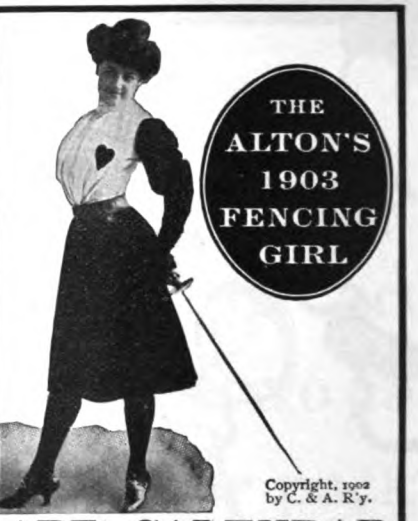

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My dad was one of the old time sportsmen and had a muzzle loading rifle which he prized highly. The clover blossoms were nicely headed when dad sent an invitation to some old friends to join him in a grand woodchuck hunt. Colonel Brown, Mr. Evans and Judge Green came.

While they were out on the veranda waiting for dinner and discussing the good qualities of their respective guns, I slipped around to the barn and took down an old woodchuck skin that had been tacked there a long time. Having stuffed it roughly with straw, I took it up on the hill just in sight of the house and tied it with a string to a fence stake so the wind would move it around just above the ground.

By that time they were at dinner. I rushed into the house and said, "Dad, it 'peers like there is a chuck up by the old stump lot." Dad went out on the stoop and put up his hands for a telescope.

"By gravy," said he, "there is a shore enough chuck. I can see him move."

Each of the party tried to be very polite, and urged the others to shoot first. I think each was afraid of missing, and that the other would have the laugh on him. Mr. Evans shot first. He claimed the woodchuck moved just as he pulled. A clean miss any way. Next came Dad's turn with his old 14-pounder. The dirt flew 10 rods this side the chuck. You should have seen Dad screw up that rear sight. He ran it high enough to shoot over the hill. Next the Colonel leveled his Winchester through the pines and unhitched it.

I saw straw fly out of the skin and knew, of course, they must soon catch on. I separated from their company and started for the barn. They fired 2 or 3 rounds more and then went up the hill to see what they had been shooting at. When they came by the barn I peeked through a crack. They looked like a lot of cows turned out of a turnip field. I sneaked up the back stairs to bed that night; I didn't want to see Dad for anything particular.

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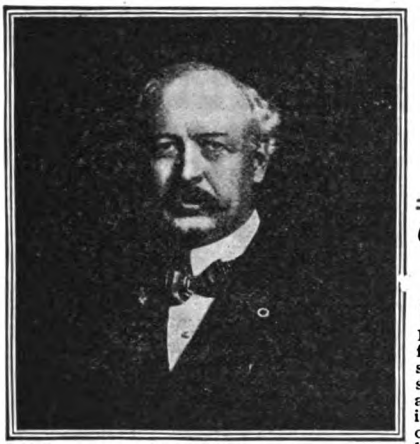

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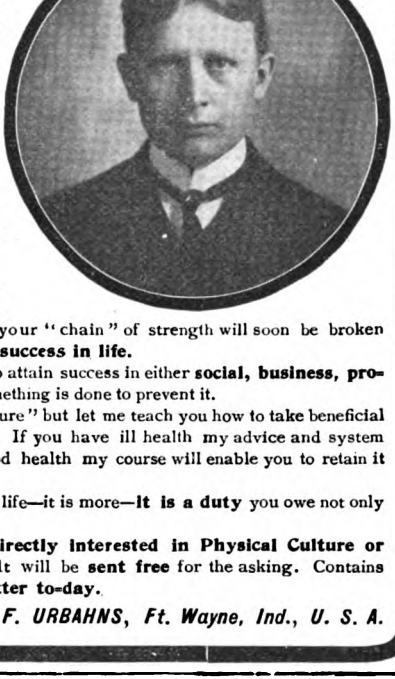

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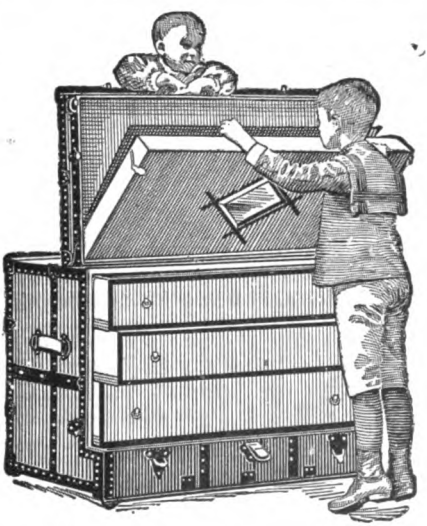

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Whereas, *a large and steadily increasing number of our patrons are discarding Hair Mattresses in favor of the Ostermoor Patent Elastic Felt Mattress, in spite of our combined efforts against them, therefore, be it*

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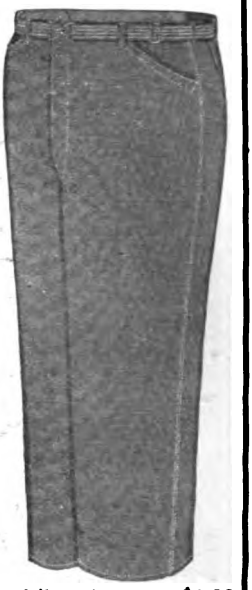

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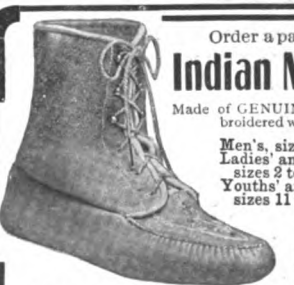

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All Work Guaranteed

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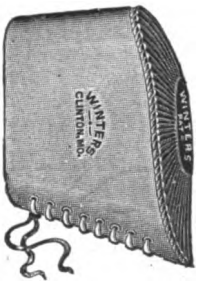

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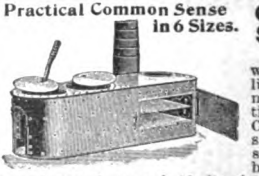

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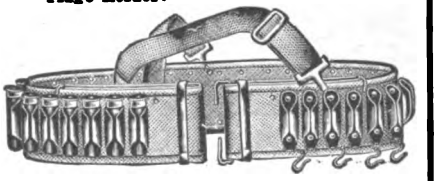

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GENTLEMEN:—Was fishing through the ice on the Flathead River this week standing for hours in wet snow and slush and tramping through the mountains, and I found the boots you built for me in December to be thoroughly water and snow proof, and quite warm. Yours truly.

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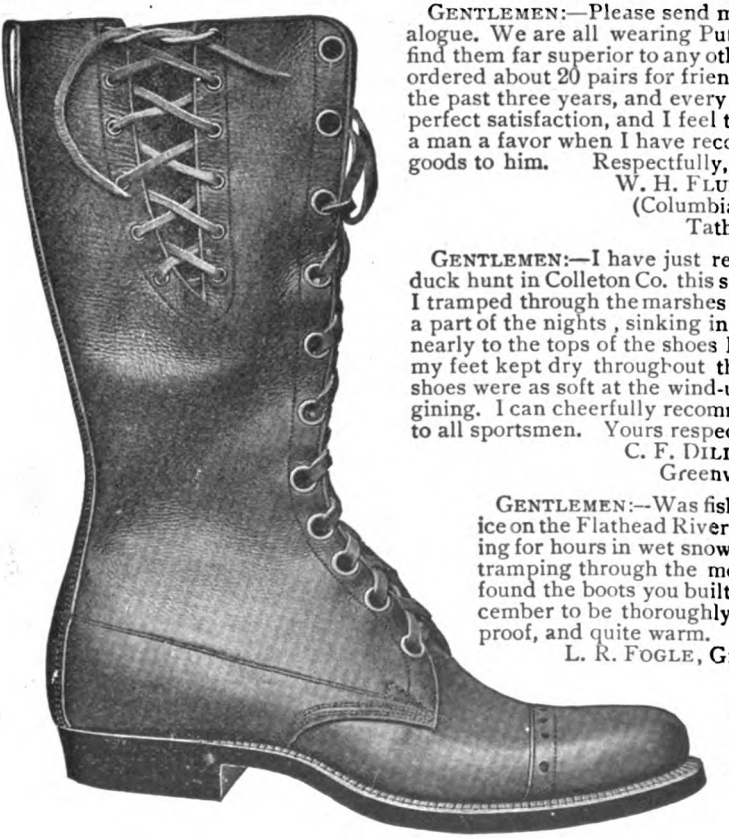

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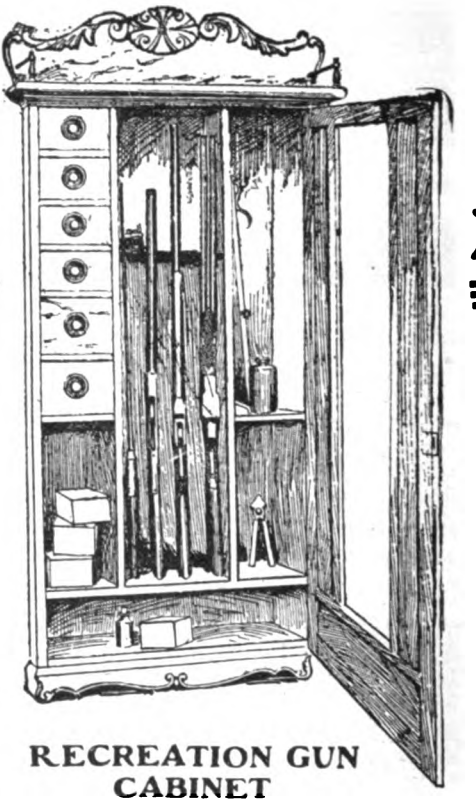

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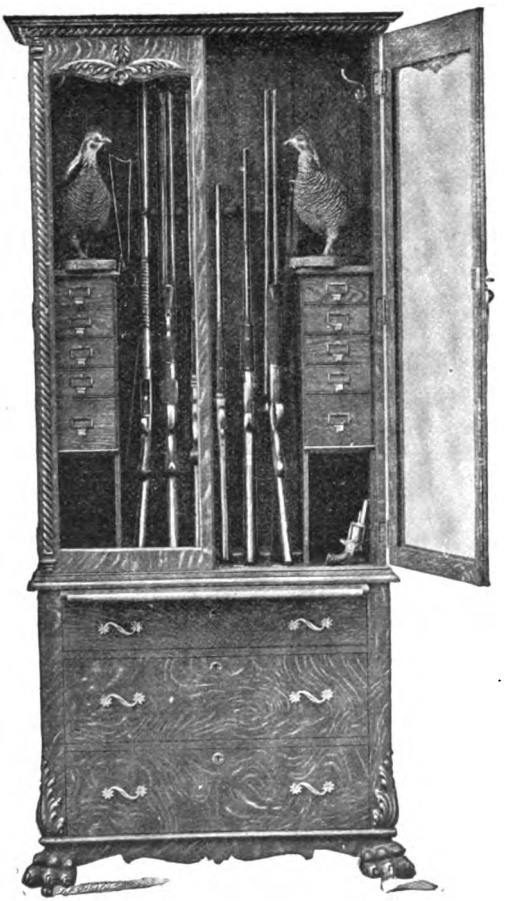

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Polished Golden Oak or Imitation Mahogany.

An Ideal Christmas Present

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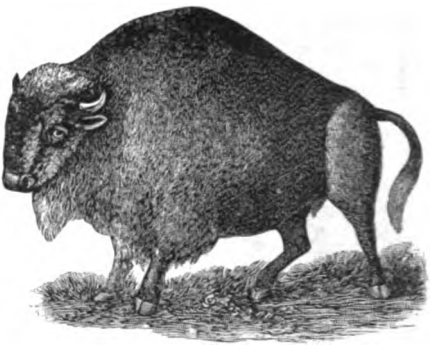
RELICS OF A DISAPPEARING RACE

Buffalo Skulls

WITH POLISHED OR UNPOLISHED HORNS



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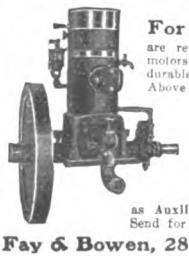

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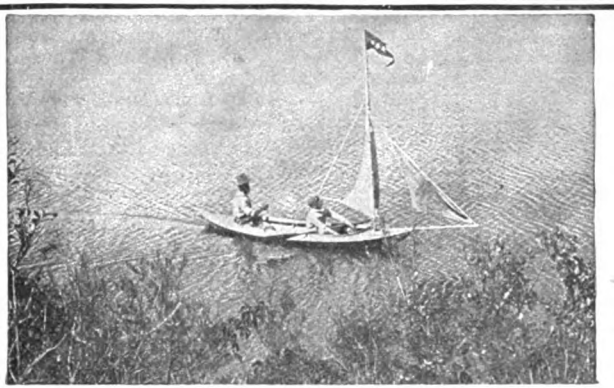

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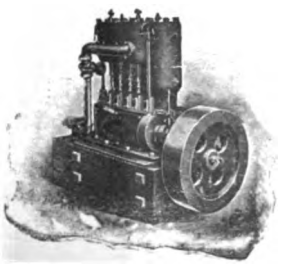

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Caught by H. H. Fraser, St. Johns, N. F.

No slack line—when fish is hooked, the little finger instantly releases spring which winds the line automatically. This continual pull prevents fish from dislodging hook from his mouth. When once hooked, he's your fish. Reel can be made free-running for casting.

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"A delight from beginning to end."

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For an eastern person there is nothing quite so enjoyable as a winter on the Pacific Coast, that country being delightful during the winter months from Southern California to Seattle. It is reached best from the east by the

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What nicer present for Christmas than **The Genuine Kentucky Reel?** The "MILAM" is the genuine and will last one hundred years. Think how long you will be remembered. Number 3 is the best size and the price is from $15.00 to $21.00. Send for catalogue.

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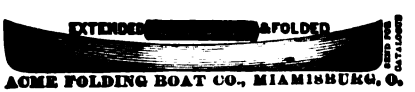

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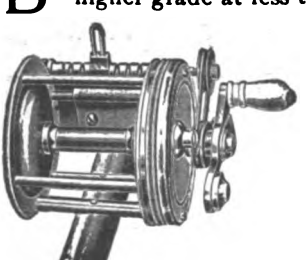

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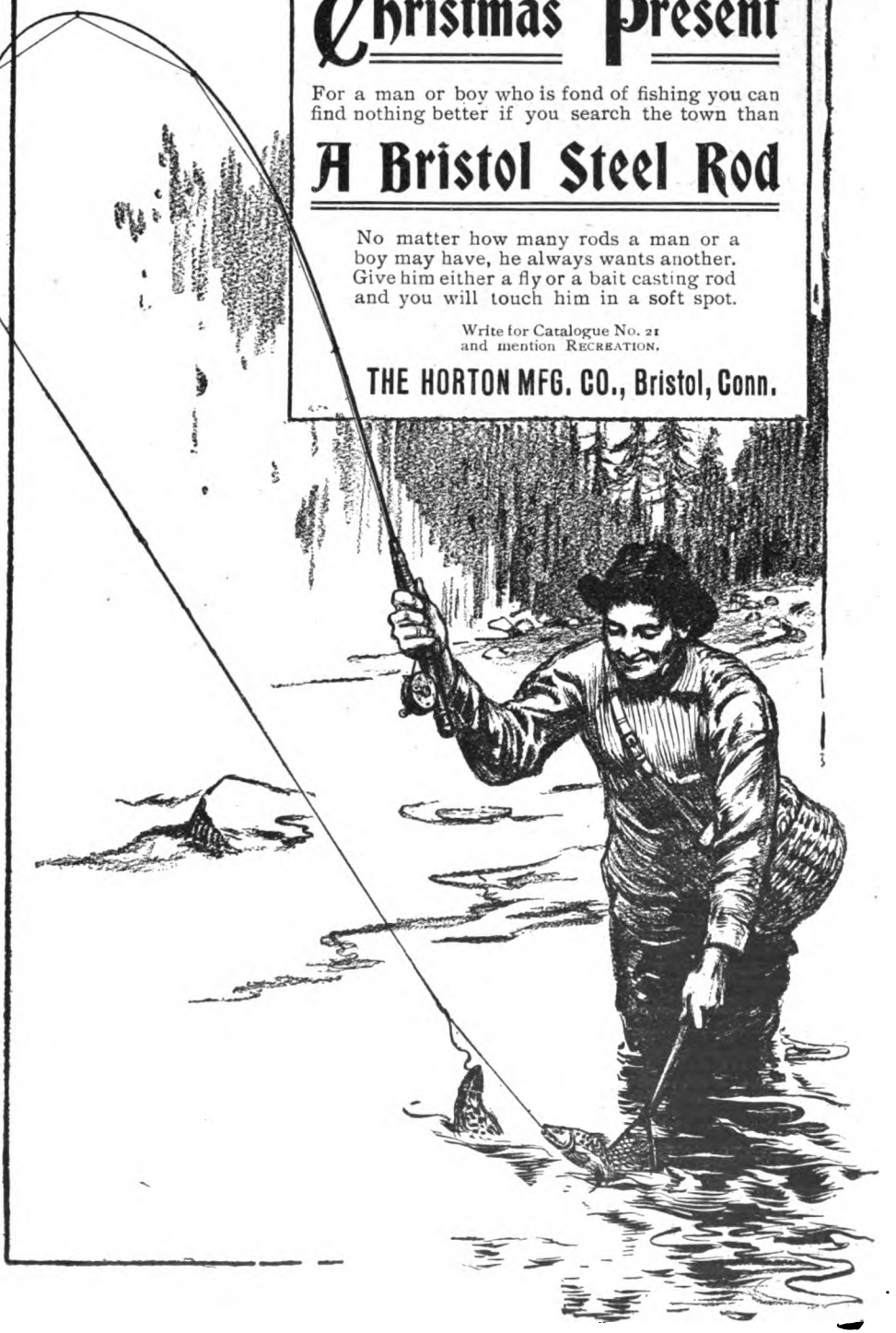

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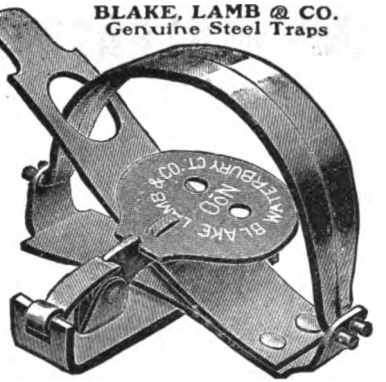

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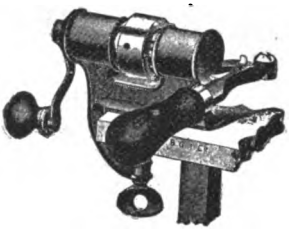

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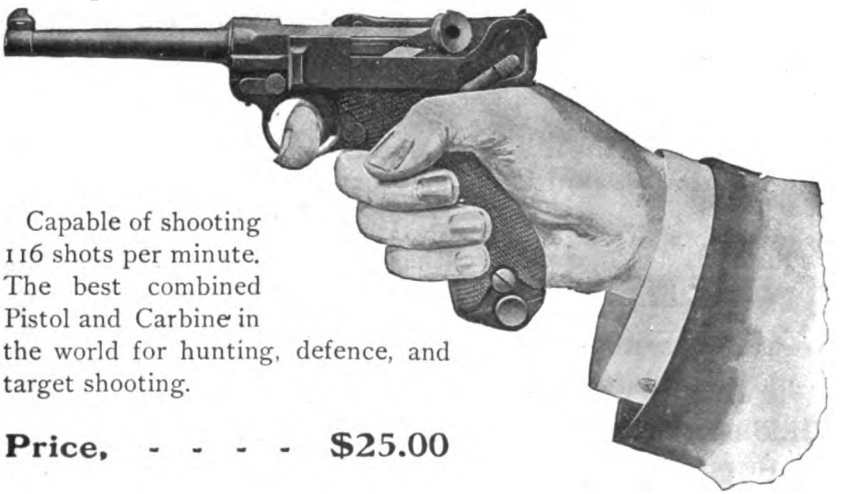

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Ask for our New Non-Ejecting Device.
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Ejectors Automatic or Non-Automatic at will of Operator.

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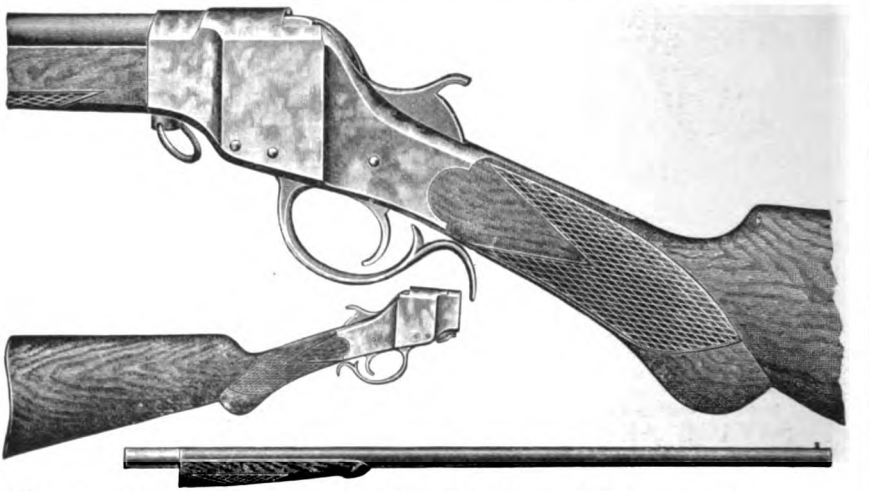

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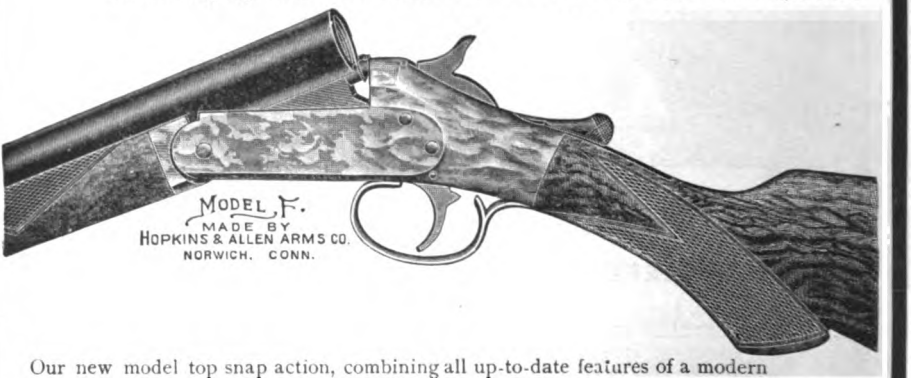

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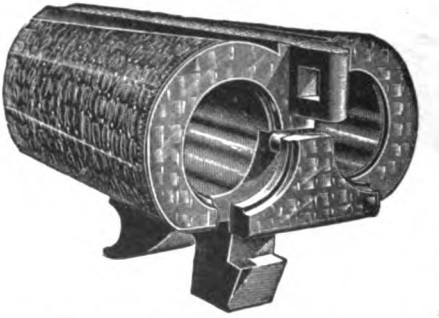

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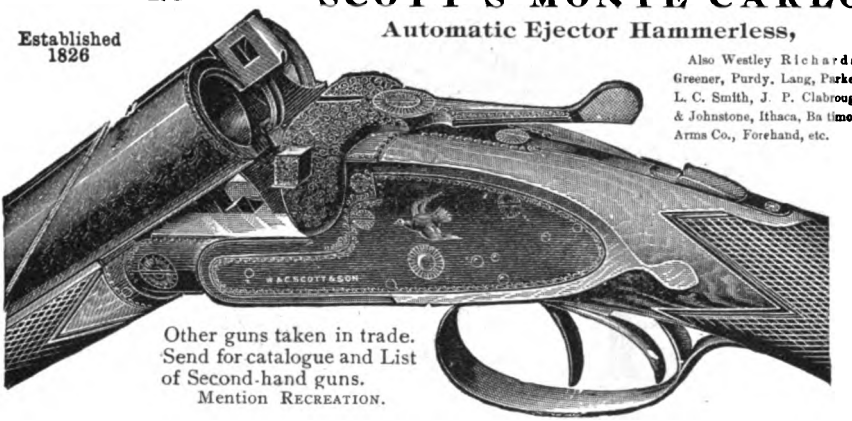

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For Duck Shooting. Soft as Kid. Finest Quality, $18.00

☞ We take the entire product of the manufacturers of above Finest Jackets and this make cannot be obtained elsewhere in the United States

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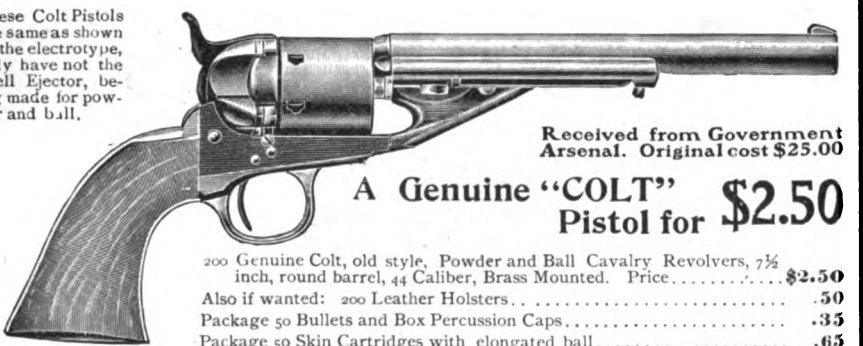

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A Genuine "COLT" Pistol for $2.50

200 Genuine Colt, old style, Powder and Ball Cavalry Revolvers, 7½ inch, round barrel, 44 Caliber, Brass Mounted. Price..... **$2.50**

Also if wanted: 200 Leather Holsters..... .50

Package 50 Bullets and Box Percussion Caps..... .35

Package 50 Skin Cartridges with elongated ball..... .65

These are in nice second-hand condition, almost as good as new. At the time of our Civil War were the most famous weapons of all. Are valuable, not only as relics of our Civil War, but as accurate shooting pistols for target or defence, and all right for use to-day. Orders accompanied by cash will be filled, and if goods are not satisfactory on receipt, they can be returned and money refunded, less cost of expressage.

Also a few left of the **Smith & Wesson 45 Caliber Metallic Cartridge Pistols,** in fine nickel plated finish..... **$9.00**

Also 100 genuine **"Remington" Breech Loading Rifles,** 32 inch barrels in fine brown finish, weight 8¾ pounds, have graduated Sights up to 700 yards, take central fire 50 caliber reloadable cartridge. Price..... **$5.00**

Cartridges for same 70 cents per box.

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All the Rifles and Carbines are in nice serviceable condition and are suitable for hunting and target purposes—are not offered as old style arms, as relics, but for use.

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is the result of superior workmanship, thorough equipment, the use of the best materials only, and 31 years' experience in manufacturing firearms.

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Descriptive Catalog on request.

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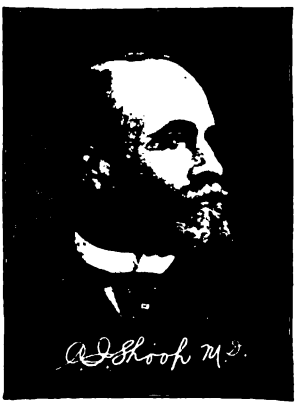
I ask you to tell me a friend who needs help.
That is all—just a postal—just the cost of a penny.
Tell me to-day the name of some sick one.



Tell Me The Book To Send

Then I will do this: I will mail that sick one an order—good at any drug store—for six bottles of Dr. Shoop's Restorative. He may take it a month to prove what it can do. If it succeeds, the cost is $5.50. If it fails, *I will pay the druggist myself.* And the sick one's mere word shall decide it.

It is but a trifle I ask of you—just a minute's time—just a penny postal. And I ask it to aid a sick friend.

It is a remarkable thing that I do in return—something that nobody else ever offered. And I do it for a stranger.

Won't you do that little—and to-day—if I will do the rest?

You ask what good it will do.

That month's test will tell. It is true that my Restorative may fail. There is sometimes a cause—like cancer—which medicine cannot cure. But the very fact of my offer must prove that failures are rare, for if they were common the offer would ruin me.

In the past twelve years I have supplied my Restorative to hundreds of thousands on just those terms, and 39 out of each 40 have paid gladly, because they got well. I have found that the cured ones are fair—and not a penny is wanted from the rest.

A sick one who neglects such an offer is unkind to himself, for success means health, and 39 out of each 40 secure it. Failure means nothing lost.

My boundless faith in this remedy is born of a lifetime's experience. I have tested it in hundreds of the most difficult cases that physicians ever meet. I have watched it succeed—countless times—when the best of other treatments failed.

I know what it will do.

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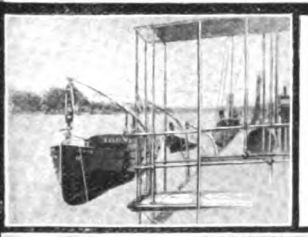

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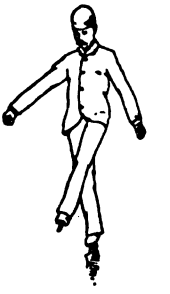

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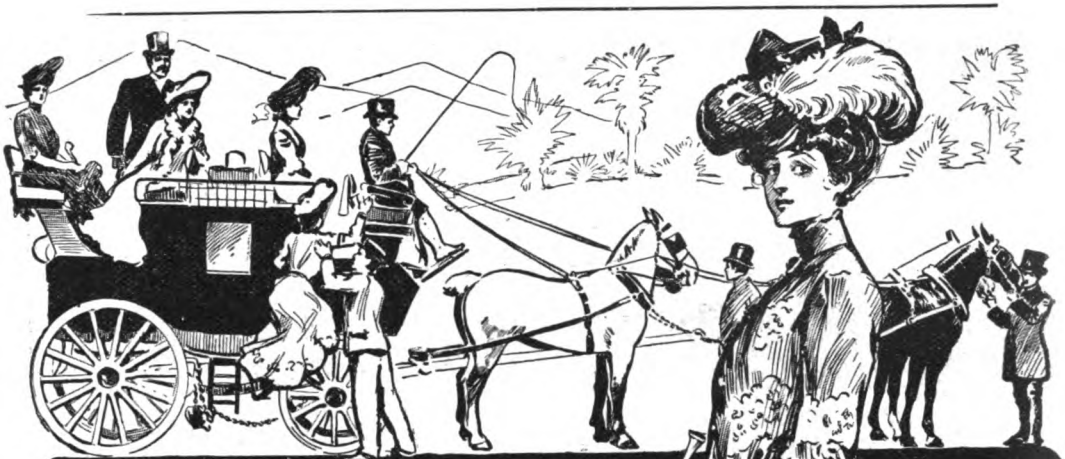

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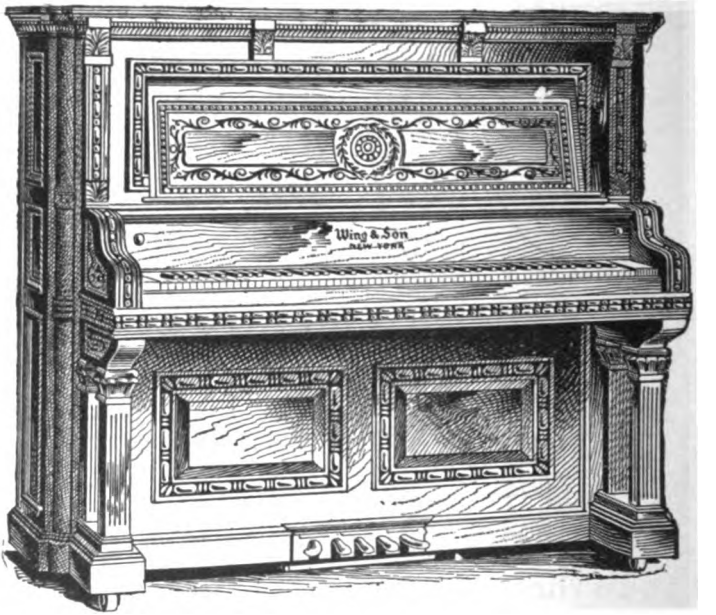

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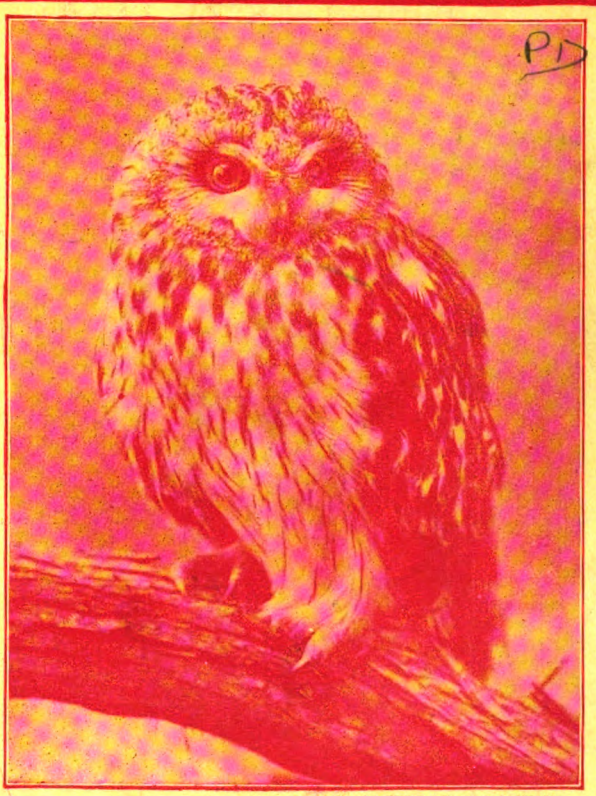

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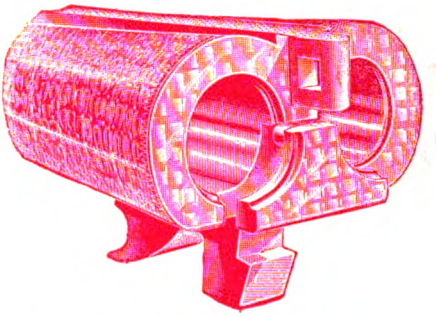

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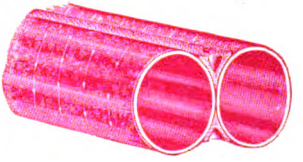

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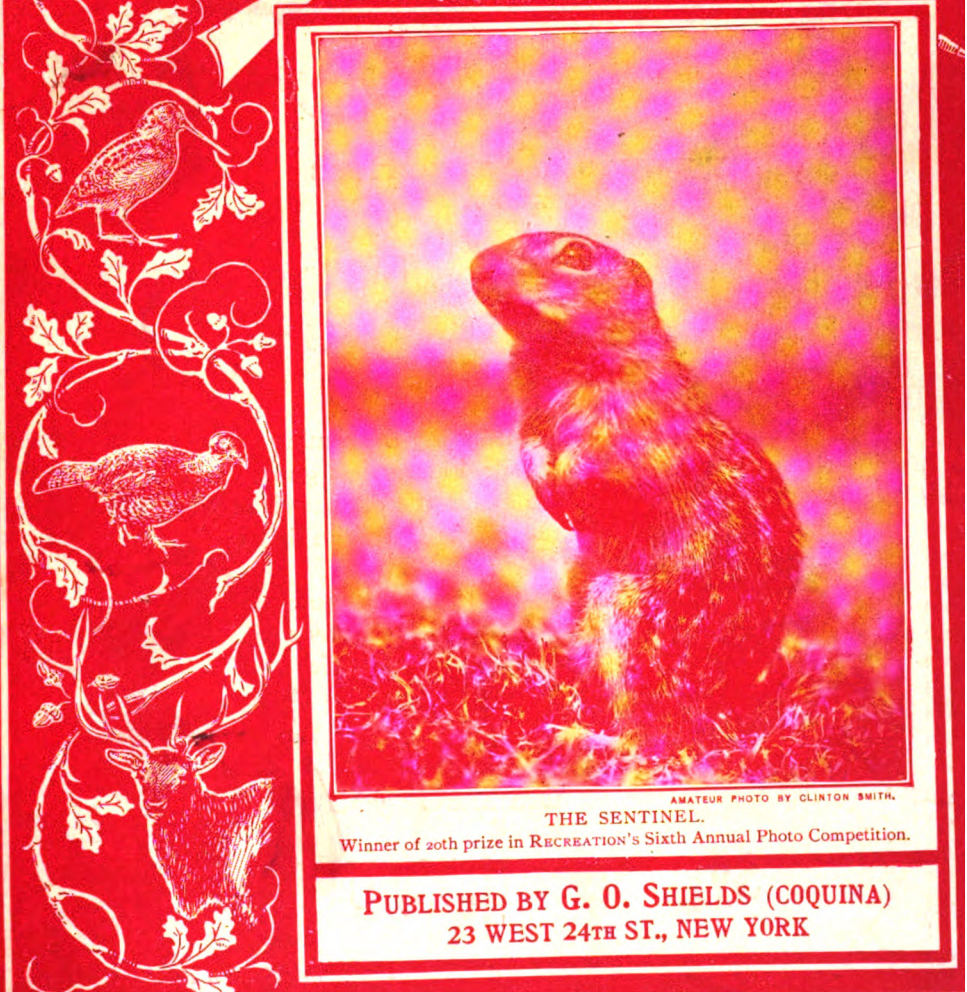

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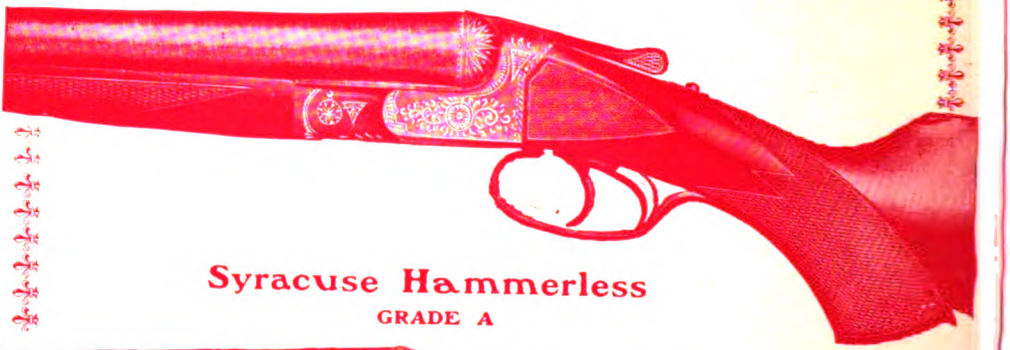

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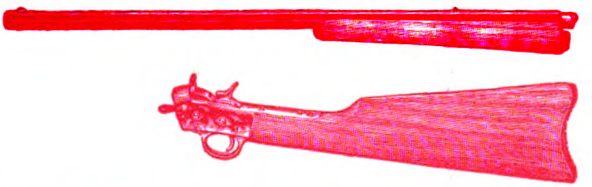

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NUMBER 3

MARCH, 1902

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Remington No. 6

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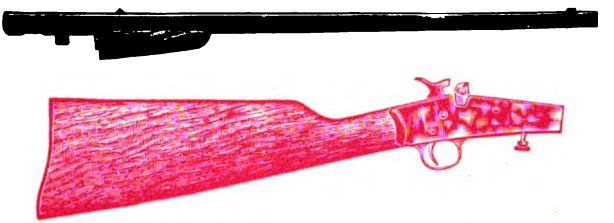

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Only hammerless, repeating rifle in the world

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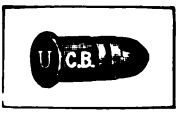

Will be used throughout the country during vacation days. They are the greatest luxury which has ever come to marksmen—no smoke—little noise—no fouling—exceeding accuracy.

The .22 Short Smokeless has gained a reputation for itself and the C. B. Cap Smokeless, now for the first time put out, is well lubricated and has no glass to cut the bore of the gun.

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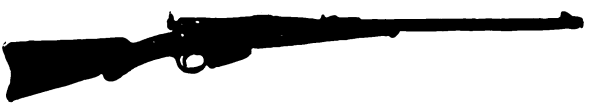

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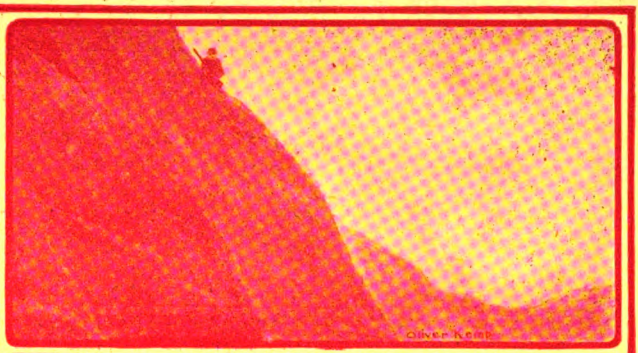

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Greaseless Bullet Cartridges

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USE POSTUM

It's easy to make the change, and it's nice to be well and happy.

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I. Single price
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